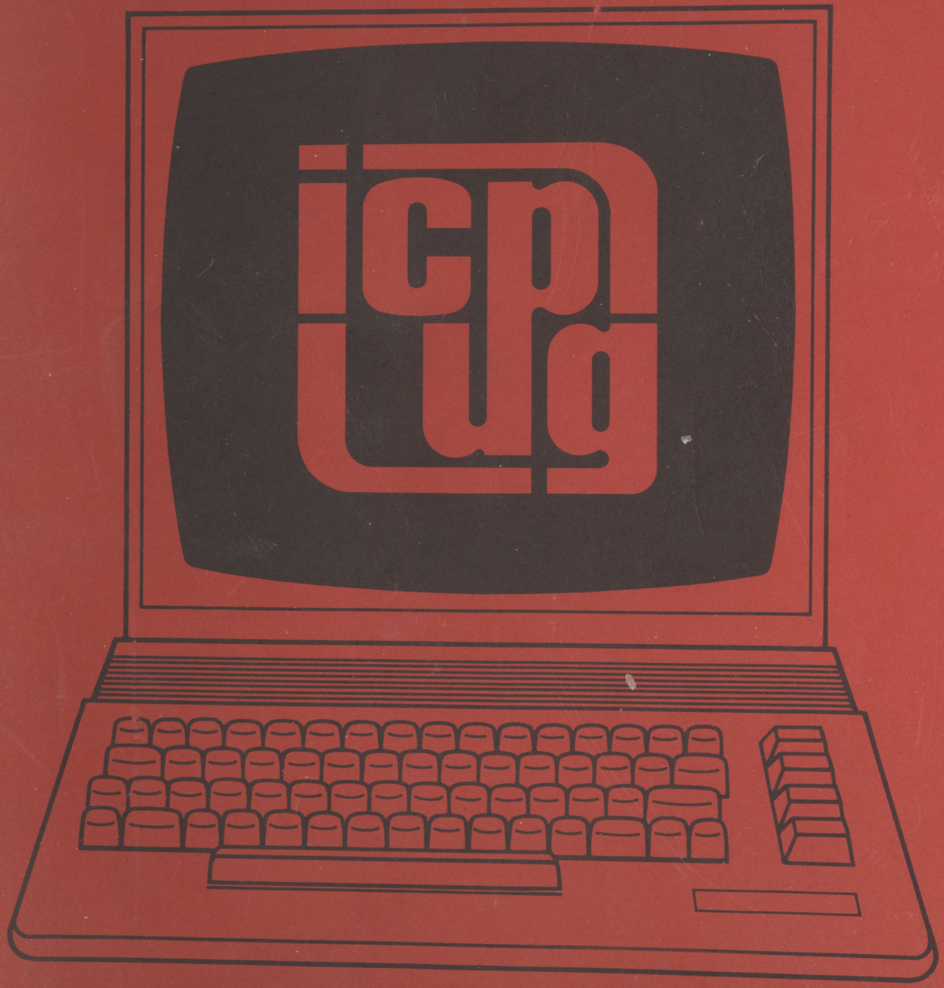
Camera-ready pages for this issue were produced on
a Hewlett-Packard LaserJet Plus
using VizaWrite Classic 128
and printed by
Codex (Egham) Press Limited
10 Willson Road, Egham, Surrey TW20 0QB
Egham (0784) 39208/34630

INDEPENDENT COMMODORE PRODUCTS USERS GROUP



Europe's first independent magazine for CBM users

Volume 10 **March/April 1988** **Number 2**

HONORARY NATIONAL OFFICIALS

CHAIRMAN
Jim Kennedy
57 Gunnersbury Avenue
Ealing
London W5 4LP
Tel: 01-993 2634 (JMK1)

TREASURER
Jennifer Goldsmith
5 Solar Court
Etchingham Park Rd
London N3 2DZ

VICE-CHAIRMAN/SECRETARY
John Bickerstaff
45 Brookscroft
Linton Glade
Croydon CR0 9NA
Tel: 01-651 5436
(after 8.30pm)

MEMBERSHIP SECRETARY
Jack Cohen
30 Brancaster Rd
Newbury Park
Ilford, Essex IG2 7EP
Tel: 01-597 1229 (day) 01-346 0050 (evenings)

ASST. SECRETARY
Andrew Cohen

DISCOUNTS OFFICER
John Bickerstaff
(see above)

EDITOR
Bill Bremner
18 Shelley Drive
Stratford-Sub-Castle
Salisbury
Wilts SP1 3JZ

CO-EDITOR
Iain Graves
21 Oatlands
Gossops Green
Crawley
W.Sussex RH11 8EE

DISPLAY ADVTG MANAGER*
John Bickerstaff (as above)
(*not small ads/Sales & Wants
— send these to the Editor)

EXHIBITIONS ORGANISER
Janet Bickerstaff
45 Brookscroft
Linton Glade
Croydon CR0 9NA

TECHNICAL ADVISOR
Tom Cranstoun
107 Dalmally Road
Addiscombe
Croydon CR0 6LY

REGIONAL ORGANISER
Brian Wise
17 Knighton Close
South Croydon
Surrey CR2 6DP

DISCOUNTS ASST – VIC-20
Derek Hoare
29 Shackleton Rd
Tilgate
Crawley
W Sussex RH10 5DF

TECH.CO-ORDINATOR
Bavin Clarke
Uplands
Burry Port
Dyfed SA16 0TD

COMMS/COMAL
Brian Grainger
73 Minehead Way
Stevenage
Herts SG1 2HZ
(Systel 438727925)

DISABILITY LIAISON
David Bate
71 Bedford Rd
Bootle
Merseyside L20 7DN

(Software Librarians – see last page and inside back cover)

---

icpug
INDEPENDENT COMMODORE PRODUCTS USERS GROUP
newsletter

Vol 10 No 2 March/April 1988

Contents

122 Editors' Notebook
124 Jim's Jottings
130 Virus Warning
131 Viruses, and How to Kill Them
135 Virus C-64
136 Which Printer to Buy?
140 Amiga Watch
146 AGM
147 Are You Using the Right Disks?
148 Texas Tales
152 Perils of Portia et al.
158 Script/Plus Bug Update
160 List to Epson
162 Autoboot Extended
164 Super* Corner
175 Mike's Meanderings
177 Hobby Computing on the C128
178 Review - Forth: The Next Step
180 Brian's Blunderings
183 Amiga Codes From BASIC
186 Amiga Programming -1
190 Exhibitions
193 Grainger's Gazette
196 Interlace, Setfont etc.
198 Review - Commodore Mags
201 8 Bits Stuff
202 Network News
206 COMAL Disks
211 COMAL Corner
212 Amiga Library
213 Plus4orth
219 Plus4 Library
220 C64 Library
223 CP/M Library
224 128 Library
225 Discount Corner
228 Readers Write . . .
232 For Sale & Wanted

Europe's first independent magazine for CBM users

EDITORS' NOTEBOOK

Peter Hauke, the Super* Corner Editor, has replaced Leslie Jarrett as second Co-Editor of the Newsletter. Peter offered his services to edit the Letters and For Sale/Wanted sections. I readily accepted, as this is a most time-consuming task, and so with my heartfelt thanks, he joins the team. Peter also edits another Newsletter for a Youth Centre, and I'm sure before long he'll be helping in the production of this journal.

On a related point, please be more considerate when submitting items to the Newsletter. The system still relies on archaic 8-bit technology and 5 1/4 inch disks, but it works very well. If you own a pre-Amiga type machine, please write your articles using it. You may well own the latest feature-packed desktop publishing-based Amiga wordprocessor with built in dictionary, thesaurus and voice recognition, but we don't. Transferring articles from 3 1/2 to 5 1/4 inch format as well as from one word processor format to another is slow, laborious, and often unsuccessful. If the only machine you own is an Amiga, fair enough, but according to the latest membership figures on the opposite page most of you still own older machines, too. Please use them!

It would also help the system if lengthy letters and adverts were submitted on disk. As far as we can see, the majority of these are typed on word processors anyway. A lot of valuable time would be saved if you sent them to us on disk. If you wanted the disk to be returned, the total outlay would be only two first class stamps. Next time you type in a letter, see how long it takes. It takes us that much time and more to re-type, edit and re-present it for publication. The previous Editors were fortunate enough to have access to Secretarial skills. We don't.

You will find included with this month's Newsletter the yearly group statements and reports for 1987. Although it is mandatory for us as a Limited Company to supply you the shareholders with this information, it makes for interesting reading.

We apologise for the lack of a second article in Joe Griffin's excellent 'PET Prattle' series this month. Owing to various commitments, the Newsletter copy pages had to reach our Printer by a specific deadline, of which Joe was unaware. We will publish it in the next Newsletter.

May we finish by hoping that we shall see as many of you as possible at the AGM on the 7th May, 2 o'clock, at the Charing Cross Hotel. May we also ask all contributions for the Newsletter to be in by the 15th May.

BB

IAIN'S INSCRIPTIONS

Wow! What a hard time I've had this month. There I am, bashing away at this Newsletter when "Pop!" my Amiga floats away to the 'Great Silicon Valley' in the sky. Why did it have to happen to me, just when everthing was going nicely? To cut along story short, after a couple of frantic phone calls for help a very generous mate of mine saved the day and lent me his Amiga (many thanks to you Gareth).

Down to more serious matters: my survey to find out about games reviews and the Brainboxes gadget (last issue - does anybody remember?). Whats up with you lot? I was waiting to be buried under sacks full of mail. When the sack arrived, after searching for an hour, I found all four (yes I said four) letters. Come on people, of 4000 members only 0.1% respond!

All I can say is that we here at ICPUG Towers were very disappointed. I won't reveal as yet the results, instead I will wait for any late arrivals and publish the figures next issue. So grab your pens and get writing to me. Do you want to see game reviews in any form ? Would you like an interface to transfer your data, or is the price to high?

On a lighter note, the Postman brought me a wonderful new toy today courtesy of Terry Cassell of Microtext - a teletext adaptor for the C64/128. In the short time I've had to examine it, I'm very impressed. Look out for a full review in next month's Newsletter.

Well that's it for this month, folks. It's 3am and this has to be in the post tomorrow to make the press. So remember, any news of new viruses, comm ents about the Newsletter, or answers to my questions, write to me at the address inside the front cover. See you all next issue.

IG

***

CURRENT MEMBERSHIP FIGURES

PET/CBM	360	Plus4	290	Cassette	1980
64	1695	C16	69	Disk	2855
VIC	314	700	39	Printer	2519
Amiga	1008	128	1076	Modem	752
PC	91			Monitor	1758

JIM'S JOTTINGS

by Jim Kennedy

I hope that you all had good holidays and Father Christmas remembered to place your new Amiga under the proverbial tree. I must apologise for the lack of a Jottings in the last Newsletter. The combination of a trip to the States, hunting for a job and the demands of a six month old son meant there were just not enough hours in the day nor days in the week for my usual column.

AGM notes

Please note the change in venue for this year's AGM from Central Hall Westminster to the Charing Cross Hotel. The Central Hall could not provide their usual room for our AGM and we were almost forced to rent another more expensive one. Then Janet Bickerstaff discovered that the Charing Cross Hotel would furnish us a room at around one third the price so we made a quick change of plans. I hope no members are inconvenienced by this this necessary cost saving action.

You should find a copy of the Annual Report and Accounts included with this issue. Please read it and, if possible, attend the AGM. We have had a very good year, with an increase in membership, and the expansion of our public domain software (especially the Amiga Library). We spent most of the reserves which are set aside for these purposes but we are still in good financial shape. I don't know of anything particularly contentious that will be raised in the AGM except we shall have to raise the subscription fee for the first time in years. It shouldn't amount to very much, three pounds is the figure being discussed at present. But please remember that we have had postage increases, inflation and an expansion of the Newsletter over the past few years without any increase and, with a possible extension of VAT to publications by EEC action, prudence dictates we take steps to insure the financial viability of ICPUG. However, the good news is that any increase won't take place until 1989. Hope to see as many of you as possible at the AGM.

1571 ROMs

The replacement 1571 ROM I ordered from CBM in the US for my old 128D seems to work OK, and the problem of having three channels open (e.g. using Superscript and Superbase side by side) has not reared its ugly head since I installed it. I understand that some alternative ROMs which have been imported by UK dealers are not exact copies of the CBM version, but they operate correctly, according to various sources.

Bear in mind that there are several 1571 ROMs out and about these days: two sets of the old ROMs, and at least two sets of the new replacement ROMs. Furthermore, the 1571 drives in the new cost-reduced 128Ds are different to the current drives. They have new ROMs which, as Sod's law dictates, are incompatible with the old ROMs.

CBM (UK) are still saying nothing about the problem or possible fixes. But with their rapid turnover of staff, I wouldn't be surprised if they have 'forgotten' the problem exists. If you have a 1571 and wish to use both sides of a disk for serious storage then I would suggest ringing commercial suppliers of the new ROMs and asking them about their product.

On a related subject, rumour has it that the replacement 128 ROMs have still not fixed the RS232 problems although I have not personally tested any of them for that bug. Again, I suggest you ring the dealers/importers of the new ROMs and ask if you particular problem has been fixed. In my opinion, however, most people will only really require the 1571 ROMs as the 128 bugs are generally minor ones.

Vizawrite Desktop

A couple of issues ago I said I would review VizaWrite Desktop. Well, various things transpired to delay my article. First, I received some upgrades to the original version which had to be tested, and this meant modifying the set of notes I was keeping on the review. These updates corrected some of the bugs which creep into almost every new program. Second, I have been very busy as I mentioned earlier. Third, I wanted to use three printers to test both VizaWrite Desktop and Word Perfect; a Juki daisywheel, an MPS1000 dot matrix and a Hewlett-Packard LaserJet.

Since I didn't have an MPS1000 I borrowed one from CBM (UK). The one I picked up at Maidenhead was apparently the one used last summer by a Channel 4 cycle sports news team who covered the Milk Race and, as my luck would have it, the manual was missing. Who knows, maybe it was given to some Milk Race rider to stuff down his jersey during the mountain stages.

Here follows a rather useless bit of information. Did you know that racing cyclists stuff newspapers and magazines down the front of their jerseys on the steep descents after the long, hard climbs? The riders get really hot and sweaty from the climb and since speeds of 50 to 60 MPH are reached they need all the insulation possible to prevent extreme chill. Having only two wheels means they can 'lean' into the corners at high speed which is not possible on four. Note when you next see television coverage of the Tour de France that they only film certain portions of the descents and then they generally have to use motorcycles rather than cars, which cannot possibly keep up with the cyclists. Since the motorcycles have a crew of two plus a TV camera they are not all that easy to control at high speeds and so can only cover short streches of the of the action. End of Trivial Pursuit.

Back to things 'computerish'. I eventually borrowed a manual from John Collins, another ICPUG National Committee member who used to work for CBM. He had MPS1000 manuals covering two versions of the printer. This was the first I had heard about two versions of the MPS1000. Apparently one has a single DIP Switch with 8 individual selectors whilst the other has two DIP switches, one with 8 and the other with 4.

Anyway, I finally set up the MPS1000 correctly, replaced the ribbon and was ready to proceed with a full review of VizaWrite Desktop. Then Pete Miles rang and said he had already drafted a review and would I mind if he submitted it to the Editor. So there you have it. A review by Pete Miles who has probably had three times the experience on the program than I have - you lucky people!

But I can't resist adding one or two short comments. I find VizaWrite easier to use than Word Perfect and it has the ability to incorporate bit-mapped graphics along with text. One drawback is that current versions only allow graphics above and below the text, not side by side with the words. The second drawback is the exclusion of a dictionary. However, I believe that both of these will change in future versions. Word Perfect, on the other hand, has a very wide selection of text features, but no graphics, as well as both a dictionary and thesaurus.

VizaWrite supports the main range of printers whilst Word Perfect supports almost every one I have ever heard of and a few I haven't. Both are much better than Scribble which in turn is superior to Textcraft. I haven't used any other word processor package on the Amiga unless you call Notepad one. As a matter of interest, this column was written partly with Word Perfect and partly with VizaWrite Desktop. I have not yet committed myself to one primary word processor on the Amiga. Maybe I'll even continue with both. But I sure wish that VizaWrite had a built in dictionary.

Early VizaWrites had bugs which seem to have been eliminated in the latest version (1.08) and I have not been able to crash it. I also find the speed increases and other added features to be useful improvements on the original.

If you require specific features, unusual printer support or a built-in dictionary then Word Perfect is probably the program you should choose. If, on the other hand, you need graphics (within certain limitations) and want something easy to use then VizaWrite Desktop would be my choice. If you want full desktop publishing with 300 dpi resolution and no jagged edges on diagonal lines then I believe you will have to look for something which supports Postscript [the industry standard Printer Control Language - Ed.]. That means a Postscript laser printer which do not come cheap. I haven't seen a really top quality, complete desktop publishing package yet for the Amiga but then maybe I have overly high standards. Either that, or distributors and software houses have not shown me one yet.

However, you should be able to obtain very nice proportionally-spaced and justified text output from Word Perfect with a Hewlett-Packard LaserJet using one of its cartridge fonts. The U font produces text of quality very similar to this Newsletter - I didn't have time to test it completely but from preliminary messing about it came very close. Alternatively, using Vizawrite you should be able to obtain good, but not quite 300 dpi, quality text and graphics output from one of the new 24 pin dot matrix printers. With VizaWrite you cannot, as yet, use any of the Hewlett-Packard font cartridges; only the built-in mono-spaced font. However, you may use any of the screen fonts which give a wide range of styles varying from the rather good to the almost ridiculous.

Viza Software is to be congratulated on its free upgrades policy. I'm sure that when some of the additional features appear in the not-too-distant future they may charge a reasonable upgrade fee, but the free fixes they have provided to date without quibble is a policy to be applauded - Other software houses please take note. Also, please take note of the fact that neither Word Perfect nor VizaWrite are copy protected.

A strange thing happened on the way to the New Year

A couple of days ago I found one of those strange bugs which defies all logic and takes me hours to locate. I began getting dates one day behind the ones I distinctly remember entering during the startup sequence in Word Perfect. I'd set the date on the Amiga to something like 8 March 88, but when using the DATE command, 7 March 88 would be displayed! During this time I was experimenting using a floppy disk in lieu of a RAM disk which Word Perfect uses for temporary files in a T directory. Thinking it was some mistake on my part I messed about for a few hours changing everything I could think of, trying to track down the problem. Finally I traced it down to 29 December 1987. When I entered that or any previous date using Preferences everything worked OK.

However, upon entering 30 December 1987 or later the DATE command in Word Perfect displayed one day less than the one I entered! The same problem occured when I used a modified startup-sequence.

I don't know what the underlying cause of the problem is but I expect more will come to light and, assuming it is a small bug, it will be fixed in future versions of Word Perfect. At present, all files saved by Word Perfect indicate one day less than their real date. The funny thing is that when I open a CLI and type the command DATE I get a true date displayed. Strange behaviour here. I rang Sentinal Software who said I had an early version and would I please send in my disks so they could supply me with an upgrade. It appears that the version I had became confused when a leap year was in sight.

I also had problems when going through the rather lengthy process of making Word Perfect's dictionary learn new words. My machine went off into never-never land for over 40 minutes (the manual say it should take 20) before I did a CTRL-Amiga-Amiga. My dictionary disk was then corrupted so I created a new one. At least I didn't lose any words as I was never able to add any in the first place. Hopefully, the new version will have that bug fixed.

Spare garbage anyone?

As mentioned before I am job hunting. And since this may involve moving house, the ICPUG exhibition stands which I keep in a corner of my garage may need a new home. They occupy a space about 3' deep by 4' high by 10' long. If anyone has a garage, shed, spare room or loft who could take over the storage of these items I and the Committee would be most grateful. The Exhibition Organizers will arrange for transport of the items to the shows each year so there would not be a lot of bother in their storage. Being in London or the Home Counties would be a large help as most of the shows are in London in spite of our efforts to try alternate locations. Ring me on 01-993 2634 for more details.

Superbase Professional

Just as I was putting the finishing touches to this column (comments to the effect that finish has never touched Jim's Jottings are not appreciated - good manners dictate that one keeps such things to oneself) a copy of Superbase Professional arrived by post. I haven't yet had a chance to do anything more than glance at it so I couldn't possibly attempt a few short comments let alone a fully-flegged review. However, I should mention that based on reviews of beta-test versions we in ICPUG are converting our membership database from 8 bit Superbase to Superbase Professional. Jack Cohen has been very busy these past few weeks learning about the package and making the conversion.

Furthermore, many of us saw a late development version of Superbase Professional demonstrated by Simon Tranmer at the last ICPUG get-together down at the Queen's Armes Hotel (yes, the one and only Pete Miles' infamous establishment down in deepest Dorset). I was impressed by the program at the time and having used most of Simon's other programs over the past few years I'm fairly certain I'll love this one. We will try to have a more complete review of the package in the next issue. Notice I said 'more complete' review. I suspect that just as with Superbase on the PET, 64, 128, etc. it will be many months before we know the full potential of this program.

One small objectiom I have, however, is that it's copy protected. I say small, rather than large, because it uses the least obtrusive form of protection - a dongle. But it is still irritating to have two or three dongles floating around ones desk which need to be swapped when changing programs. Logistix, a spreadsheet from another British software house was reviewed in Amiga World a couple of issues ago and the fact that it was copy-protected in this same manner was adversly commented upon. We only have one port available into which a dongle can be plugged. Would someone please explain what will happen when you want to have two dongled programs up and running because you wish to cut and paste from one to the other?

Disabled affairs

David Bate, our Disabled Liaison Officer now has an assistant, Ian Jones of 21 Dene Street, Pallion, Sunderland, Tyne and Wear, SR4 6JB. Hopefully we shall be having some articles on these matters in future issues of the Newsletter. In the meantime, please contact either of these two officers if you need any help in their area of responsibility.

Compunet version of Endterm

Eddy Carroll of Dublin has written a Compunet version of Endterm. It is available on Compunet for £10 or from Edison Software, 20/27 Sir John Rogerson's Quay, Dublin 2, Ireland at the same price. ICPUG members will get a 10% discount if they quote their membership number.

This program is useful for accessing bulletin boards or other services. It has a directory which will hold up to 8 numbers for autodialing. I havn't had an opportunity to test the program but hope to have a review of it by the next issue.

⁂

WARNING! KILLER VIRUS LOOSE!

by Iain Graves

The virus or should I say viruses are causing quite a stir, as you will see in this issue. There is a new strain of virus called 'BYTE BANDIT', a particulary nasty beast, and one which we all feared would crop up eventually. This little critter works in the same way as the standard virus, except that instead of printing up a quaint little message on your screen it crashes your machine and trashes your disks.

A tell-tale sign it has infected your disks is when for no reason your Amiga suddenly dies. This virus has no pity - it just shuts the system down. The only way to recover from it is to switch off your machine. Even if your Amiga is accessing its drives at the time, no mercy is shown - it still crashes. No quarter is given - you may have something of extreme value in your machine at the time, some wordprocessing masterpiece or your latest mega raytracing demo. All will be lost.

Finding this virus is not easy - it can't be detected by the current virus killers. The only real way to do it is with a sector editor program, of which a good one (in our library) is called SECTORAMA. Load up this program and put in any suspect disk you have. Read in track 0 head 0 sector 0. Look in the ASCII window and if you have the virus you will see something like this:

```
DOS 7 hp    VIRUS by the BYTE BANDIT  in 9  87  number of copies,
```

You can also find the SCA virus in the same way. Something like:

```
DOS 5  CHW!!!
```

This one is a little more subtle, but one way to confirm it is to look at track 0, sector 2, head 0 and you should see the message, SOMETHING WONDERFUL HAS HAPPENED etc. If you find any of these viruses on your disks (especially check your workbench disk) put them to one side. Switch off your machine, count to ten, and power on. Then, insert a clean workbench disk, probably your original write-protected disk, and simply 'Install' each disk.

One further word of warning: it is best to check all your disks as this virus does appear to get around write-protection. I have had several calls from people with this virus who have had it on disks that are always write-protected! You have been warned.

ON VIRUSES, AND HOW TO KILL THEM

This article concerns the SCA virus and its descendants on the Amiga - what they do, how they do it, and how to kill them. This article is by Harry Broomhall (research and virus zapping) and by David Parkinson (words). The purpose of this article is to correct a certain amount of misapprehension concerning the virus, particularly in the media. This article first appeared on the COMPUNET network for Commodore 64 and 128, Commodore Amiga, and Atari ST; it is on the public domain, and may be freely copied or quoted.

Introduction

A great deal of nonsense has been written recently on the subject of the dreaded Amiga virus. The virus, it is implied if not stated directly, can completely destroy all your software and wreck your computer; it will then (presumably) leap out, strangle the cat, and proceed to knock your house down. The truth is more mundane. The SCA virus started as a silly joke which got out of control; under normal circumstances it does no damage at all, and it is also very easy to kill it and to prevent reinfection, as we shall explain later. The SCA virus is only really of interest for the light it throws on computer viruses in general, and the interesting parallels these show with the spread of biological viruses in the human community.

About the SCA Virus

The SCA virus for the Amiga has been something of a success story in computer virus terms; now that virus test programs and antibodies are freely available, some Amiga owners have been shocked to discover that something like 70% of their Workbench (system start-up) disks are infected. This success probably reflects the fact that the Amiga is a complex and sophisticated machine, the internal operations of which are only now coming to be widely understood; it may also reflect the fact that the SCA virus itself is simple, but rather clever.

The way the virus works is as follows. Normally, the virus lives on the boot track of an Amiga Workbench disk - ie a disk which is used to start or re-start (re-boot) the system. It can ONLY live on Workbench disks - there is no way at all that an ordinary data or program disk can be infected.

The Workbench boot track contains code which is read in and executed as part of the system start-up. Normally, this code does very little, except to look for the rest of the DOS (Disk Operating Software) in the Amiga's internal ROM memory, then hand over control to that. The purpose of reading in and executing code from a boot track is to allow non-standard start-ups if required; unfortunately, it also allows the startup process to be subverted by the virus.

On an infected Workbench, the virus replaces the normal start-up code on the boot track. When the virus code is read in and executed, it copies itself into a region of memory usually reserved for system stack, then wedges itself in by taking over certain system vectors, particulary ones involved in re-starting the Amiga; ie it interferes with the normal operation of the machine, so that any efforts to re-start it will be intercepted by the virus. It then proceeds with ordinary system start-up as if nothing had happened.

All is then well, until such a time as you decide to re-start the machine, by re-booting off another Workbench. (This is achieved by holding down three keys together, which are the CONTROL key, and two special keys called CBM and AMIGA.) At this point, the virus intervenes; it checks if the new Workbench is the same as the old one, and if not copies itself onto its boot track, so that the new Workbench is also infected. Normally, it does nothing to indicate that this is happening; every sixteen times it copies itself however, it lets on that it is there by blanking the screen, putting up a rather pretty banner, and printing

```
Something wonderful has happened -
Your AMIGA is alive!!!
And, even better...
..Some of your disks are infected
by a VIRUS !!!
Another masterpiece of
The Mega-Mighty SCA!!
```

It then gets on with starting up the system from the new Workbench as usual.

At this stage it might well be asked what harm is there in this? The answer, in normal circumstances, absolutely none at all. The people who created the SCA virus were not at all malicious, they were just having a silly joke, and showing off how clever they were. What they overlooked was that some protection schemes, as used by some games software, also make non-standard use of the boot track. The virus will interfere with such schemes by overwriting the boot track, preventing these games from running. Not so funny.

Killing the Virus

Fortunately, the people who created the SCA virus wrote into it a mechanism for switching it off and getting rid of it; killing the virus is therefore very easy, can be done by anyone, and requires no special software.

To find out if the virus is currently in your Amiga's memory, perform normal CTRL-CBM-AMIGA re-boot, but then HOLD DOWN THE LEFT MOUSE BUTTON while the system re-starts. The SCA virus checks for this button being down when it is invoked; if so, it disconnects itself from the system, then flashes the screen GREEN briefly, just before the normal start-up display of a hand holding a Worbench disk. So hold down the left mouse button while you boot; if you get a green flash, it means that you had the virus in memory, and therefore the Workbench you originally started from was infected.

To get rid of the virus from a Workbench, start off with a clean (non virus) standard Workbench; you can check this by performing a left-mouse-button boot as described above. Now put the infected disk in drive 1 (say), enter the Amiga CLI (Command Language Interface) and type

```
INSTALL DF1:
```

This will restore the standard boot-track, hence killing the virus. To prevent re-infection by the SCA (or any other) virus, you should now write-protect the Workbench disk by sliding the plastic tag. That's it - virus exterminated. (NOTE that this procedure is for standard Workbenches - it is NOT guaranteed safe for key disks, copy-protected games, etc. However, if a copy-protected game disk is KNOWN to have the virus, you can TRY this procedure - it will certainly get rid of the virus, but won't get the game working again if the virus has upset its protection scheme - you will need to obtain another copy.)

More about Viruses

The above account pretty well completes the story of the Amiga SCA virus. It should perhaps be added that it as at least strongly rumoured that certain cretins, who would not have been capable of thinking up the SCA original, have nevertheless thought it clever to mutate the virus by producing new and more dangerous variations on the original theme. It is also rumoured that there are supposed antibody programs in circulation which actually introduce new viruses. This is feeble stuff however compared with the original; Harry's cure, of INSTALLing on a clean system then write protecting the Workbench, should also serve to kill any SCA mutations, and is a lot safer than relying on antibody programs of dubious origin.

This brings us to the more interesting area of viruses in general, and the biological analogy implied by the use of the name virus. The SCA Amiga virus is fairly classic in this respect; it exists in two main states, dormant state the boot track of an Amiga Workbench disk, and active, actually wedged into the operating software of a working Amiga. In its dormant state it propagates by the normal process of people copying Workbench disks; in its active state, it propates onto other disks brought into contact with it on re-boot; it has enough sense not to produce any symptoms until this process is quite far advanced (16 copies). The infected body (the community of Amiga users) reacts by producing antibodies to the virus, some of which are more dangerous than the virus was in the first place - there are medical parallels here too. Finally, as the virus spreads around, helped by certain fools, it mutates.

An obvious question is why this sort of thing hasn't happened on microcomputers before. On mainframes and minis, virus programs are quite old news; a classic example was a virus on the Cambridge Ring network which used from time to time to grab control of every output device on the ring and print I'm the Cambridge Gremlin - I'll bet you can't catch me! It is however quite a new phenomenon on micros. The answer probably lies in the fact that computer operating software has to pass a certain level of complexity before it becomes vulnerable to attack by a virus. The Amiga runs a multi-tasking operating environment a great deal more sophisticated than anything available on the PCs which came before it. This is responsible for a lot of the attraction of the Amiga; it also renders it vulnerable to a virus.

A final point concerns the way that the SCA virus travelled from Switzerland where it was developed, to infect the rest of the Amiga world; this process bares a resemblance to the spread of a great deal more serious and alarming human virus called HIV. In order for one Workbench to infect another, they need to get into the same computer together in cirumstances where they are not write-protected; the analogy for write-protection here is pretty obvious. It seems very likely that the spread of SCA from Switzerland was helped by some very promiscuous software concerned with making copies of other programs, for software piracy or hacking. In this context, the SCA Virus was known about many months ago; however its spread was further helped by an attitude which held that SCA was something which happened to nasty horrible hackers, and not to ordinary decent Amiga users like us. It is these same ordinary users who have recently been finding that something like 70% of their Workbenches are infected.

A good thing then, that the SCA virus on the Amiga can be cured so easily.

Harry Broomhall & David Parkinson, 30th January 1988.

VIRUS C-64

by David Miller, C64 Libraries Organiser

It has been brought to my attention that a virus has been created for the C-64. Jens Guld of the PC Society in Denmark sent me the details, and a virus killer to help cure the problem. If you require a copy of the killer please drop me a line and I will supply it on disk in both versions. Usual mailing arrangements please.

A German user group named Bayerischen Hackerpost (BHP) has developed a virus for the C64. It is not fatal but it is a nuisance. It comes in the form of a program, eight blocks long, which is perfectly harmless until it is RUN. It will then print the message: Fatal Error in 1986. If LISTed you will get a single BASIC line with a command to PRINT the above message. When the virus has installed itself in the computer it will spread itself to other disks and other programs not only when SAVEd but also when LOADed.

The virus is spread during a LOAD operation when a program is LOADed to the start of BASIC. When the virus infects a disk it will do so by attaching itself to the program that is being LOADed or SAVEd, and manipulate the disk directory so that any infected files have unchanged file lengths. If you calculate the blocks used by the files on the infected disk and add the number of blocks free you will notice that something is missing. If you LOAD and LIST an infected program you will see the following line:

```
1986 SYS PEEK(43)+PEEK(44)*256+48:VIRUS
```

When you RUN such an infected program the virus will install and activate itself. The main part of the virus can be found beneath the I/O area from $D000. It is, of course Reset proof and RUN/RESTORE proof.

The German C64 periodical 64'er has produced an anti-virus which they have published in both a compiled and an uncompiled version.

Sources: 64'er 07/1987, pp. 8-9; 64'er 02/1988, p.57.

**

WHICH PRINTER TO BUY?

OR, HOW TO SPEND IN FOUR FIGURES

by Chris Wright.

There cannot be many ICPUG members who don't own a printer. For most it is just an extra tool of the system and may only be used occasionally. For others it is an essential and regularly used piece ofequipment. In the past I have always owned Star printers, upgrading as each warranty period ends. This year I was going to splash out on a 24 pin printer, but which one? I collected all the colour leaflets, visited a few shops for a test drive and gathered samples of printing. What with 'self-parking', 350 x 350 resolution and all the other gismos and facilities each one offered my head was in a whirl and I was even further away from a decision. Calls to various members who had Star NB's or LQ's didn't help. It was as bad as talking to a salesperson - they were praising the qualities of their own choice.

I have always owned wide-bodied printers as I also use them at work. The. get quite a bit of use, but none have ever let me down. I particulary wanted speed as well as quality and at one stage I was very close buying Epson's ink jet at 450 cps. So near in fact that if I hadn't spotted an advert in one of the computer mags, I would have bought one the next day. It said 'Laser Printers £895 plus (the virus) VAT'. I worked it out that this would cost me about the same as the Epson. Decision nearly made, and one crash course in Lasers coming up.

Contrary to popular belief, lasers are fairly old technology. Big Blue produced the first commercial one in 1975, that's 13 light years ago! Briefly the unit employs a microprocessor-controlled laser beam that is turned on and off millions of times a second. These light beams hit a positively charged print drum creating the reverse image. The drum is dusted with a tone powder which sticks to the neutral areas. When the negative charged paper comes into contact with the drum, the toner is attracted to it, forming the desired image. This image is then fused to the paper using heat and pressure, producing your handiwork in 300x300 dpi resolution. Most of the technology is borrowed from the photocopier, hence we hear the term, 'it uses a Canon engine'. The printer has Cannon innards with the laser manufacturer's other bits added.

From my research I discovered a) that lasers are remarkably reliable nowadays and b) shop around as prices vary widely on the same model. Most lasers come with either 256 or 512K memory on board. This is fine for text only, but if you are going to require graphics you need at least 1 megabyte or even 1.5 megabytes extra. Some come with this fitted but the price will be adjusted accordingly. Next is emulation. The latest generation of Lasers all have Epson, Diablo, HP Laserjet, IBM PC or Proprinter emulation. Some have variations on this. Some have lots of different fonts built-in or have them on extra font cards (£90 plus sic!). All these extras cost money but there is one extra I would advise any purchaser to allow for as a must and that is the Service Contract. Yes I know I said they are reliable these days but hands up all those in their own home who haven't got some sort of insurance on the property and contents? You know it won't happen but Murphy pops his head up if you aren't covered.

Most Lasers are pageprinters. That is to say they have to receive a full page of text/graphics before it is printed. You get quotes like 20 seconds first page and 8 pages a minute. These are essentially true for a page of text at 4% density. Start using graphics and the time for the first page can elongate to one or two minutes. This may sound long but in effect there are not many dot matrix printers that can print a page from say City Desk or Publisher 2000 in two minutes. In fact I can't think of any. After the first page the others trip off nicely at 8 or 6 or 10 pages a minute depending on the rated speed of the laser. I also like to use card as well as paper, so a straight-through paper path was required for envelopes, transparencies, and so on. If sorting, face-down printing and other such features are required then the price just keeps climbing. I eventually chose a Centronics PP8 printer. It only had one typeface but that didn't bother me. The Amiga generates it's own fonts and the software I run on the 128 also generates it's own fonts.

It has a straight-through paper path, prints eight pages a minute and emulates the Epson. I bought the HP Emulation and 1.5 extra memory. All this plus a year's service contract and an extra toner cartridge only cost £1,120 plus VAT.

Now I reckon I got a bargain - the nearest was the Epson GQ3500 (£450 extra if you include the bits and pieces I bought). What about the running costs? You have to look into these very closely. Toner cartridges can cost as little at £19 or as much as £95. They also last between 1,000 and 7,500 pages. Then there is the Photochromatic belt and the developer. Again, costs vary widely from £50 upwards to £290 for the former and the same wide variations for the later. The Centronics toner is changeable at 5,000 pages, the drum at 15,000 and the developer at 30,000 - the machine tells you when they are due. The costs are £25, £52 and £175 respectively and it will be a long time before the developer needs changing.

Having parted with the readies, I spent an hour reading the manual suffering itchie fingers all the while. Then, to grips with the beast and assembling all the bits and bobs. Very quick really, ten minutes and we had our first test print-out. Quiet? All I could hear was the gentle hum of the cooling fan. Worlds apart from the buzz-saw noise of a dot matrix. Next came the addition of the extra memory. Just a slot-in board. The banks of dip switches were approached with trepidation but were soon sorted and hey presto! The first page of graphics. Beautiful quality, I certainly don't regret the expense of the laser now, and so quiet. The tapping on the keyboard makes more noise than the printer. Oh, I forgot to mention that there are options for RS232 and IEEE interfacing, in fact there is a facility for whatever machine you wish to drive it with. I must admit it is rather heavy at 66 lbs but in size it is not much larger than a monitor at 17 x 17 x 11 high.

Every quarter I print a twelve page newsletter for a local society. I normally use A4 micro perforated 90 gram tractor paper, printing all the odd pages first and then running the paper through on the other side for all the even pages. This takes some 12 hours and four ribbons. The laser did it for me the other night in two and threequarter hours and the result was excellent. Daisy wheel quality. I was loathe to give up the wide printer but no problem. Just set the machine to from vertical to horizontal printing and we get the stuff printed sideways on 13 deep paper. I printed a sign from Delux Print this way and stretched it out and down. It came out on three sheets of paper that were stuck together and became a very large poster with graphics and fancy fonts. That one was put on the anouncements board in the local Civic Centre and dwarfed the others.

To say I am happy with the laser would be understating it. I am glad I made the leap to this technology and it wasn't too expensive either. (Remember all those guys who shelled out over £1500 on Amiga 1000's not so long ago? If the motivation is there you do it.) As with everything, there are benefits as well as drawbacks. If anyone is seriously contemplating buying a laser and wishes to have a chat with someone with hands on experience, I am only too pleased to help. Call 0253-734330 after 8pm please.

⁂

LEADING EDGE SYSTEMS.

12 Stonecroft, Knebworth, Herts., SG3 6BL, England.

Telephone: Stevenage (0438) 812609

256K and 1-MEG BYTE EPROM CARDS:

Both cards:

- Handles programmes up to 220 blocks long. (MUST BE ONE-PART PROGRAMMES).
- Concatination of programmes; no wastage of EPROM memory.
- More than one programme on an EPROM.
- Menu driven alphabetical directory display on power-up.
- Built-in module maker.
- Reset button.
- RUN or SYS starts.

256K Card Only:

- Use any EPROM types 2764 to 27256.
- 256K of RAM available (8x27256 EPROMs) - over 1000 blocks of disk.

1-Meg Byte Card Only:

- Use any EPROM types 2764 to 27512.
- 1 MEG of RAM available (16x27512 EPROMs) - over 4000 blocks of disk.

MICRO-MAX and GOLIATH EPROM BURNERS:

- Menu driven from software on disk.
- Read, Write, Verify and check for Blank EPROM options.
- Data Editor Monitor via menu.
- Software selected burning voltage, 12.5 or 21 volts.
- Automatic verify after burning.
- Copy EPROM option.
- Both burners can handle all types of EPROM from 2716 to 27256. Only the Goliath burner can handle the 27512 EPROMs as well.

PRICES IN POUNDS:		EPROMS	
256K EPROM Card	33.32	2764	3.25
1 MEG EPROM Card	56.65	27128	3.50
MICRO-MAXI Burner	43.32	27256	4.10
GOLIATH Burner	49.98	27512	8.15

P & P 1.00 Delivery: 3 to 4 weeks

(Items are imported from Germany).

AMIGA WATCH

by Mike Todd

1988 started off rather badly for me and my Amiga. While trying to research the Amiga disk format for the Newsletter I succeded in shorting one of the interface wires with an oscilloscope probe. The result was a totally non-functioning Amiga. I found that I had blown one of the interface chips by applying a voltage where one ought not to have been.

These interface chips are not standard components, but I found a company in Birmingham who seem to hold a huge stock of Commodore specific components. Although their catalogue didn't have Amiga 1000 components, it did have them for the A500 (which uses the same chip - an 8520). A phone call was all that was needed for a replacement chip to be on my doormat the following morning.

The catalogue that I had was supplied free with TELEVISION magazine in December last year although I'm sure the company would supply a catalogue on request - it is HRS Electronics Ltd., Electron House, Great Barr St., Birmingham B9 4BB - telephone 021-771-2525. They accept credit card orders, and appear to be fast and efficient.

The catalogue covers all computers from the Plus4 to the C128 and A500, as well as printers, disk drives and monitors. It's a great help for all those who, like me, are prepared to do their own front line maintenance but find Commodore components tricky to find.

Having replaced the 8520 chips, everything worked - well almost. Neither disk drive would tell the Amiga that the disk had been changed. Further investigations indicated that a chip in each of the drives had also blown - this time there was no chance of replacement. After a week of careful probing, I was able to replace the broken logic with a couple of gates and a transistor, designed from scratch - it all now works, even if it is a bit of a bodge. At least now I know how the drive control logic works, and saved myself a small fortune in the process!

The moral of this story is that not all of the Amiga interface connector lines are buffered - so, whatever you're doing - BE CAREFUL!

Superbase start-up

Now that I'm using Superbase more and more I have set up an automated boot disk which does all my setting up for me. The sequence opens a small CLI window at the bottom of the screen, makes my external drive the current drive (since I work with my databases on df1:) and copies any work-files (which are empty copies of the database files) into RAM:. Until recently, my startup-sequence was:

```
COPY df1:work#? TO RAM:
STACK 10000
CD df1:
NEWCLI con:0/200/640/56/WORKSPACE
df0:superbase
```

This copies into RAM: all files on my data disk which are prefixed with "work" - then sets up a large stack (the manual recommends 8000, I prefer 10000 to give a large margin) - sets df1: as the current directory - opens the CLI window and then starts Superbase itself. This wastes a fair amount of RAM, since the original CLI window is still present underneath the Superbase window. At first it seemed impossible to get rid of it to conserve memory.

However, using the FROM option on NEWCLI, there's a neat way of doing it. First, I create a new batch file called BOOT-SUPERBASE which contains exactly the same as the above startup-sequence. Then I create a new startup-sequence as follows:

```
NEWCLI con:/0/0/2/2/ FROM s/boot-superbase
ENDCLI TO NIL:
```

This opens a tiny CLI window at the top left of the screen (if you don't believe me, execute the NEWCLI con:0/0/2/2/ command, put the mouse pointer at the very top left of the screen, press the left mouse button and re-size the tiny window - clever, eh?). This CLI is instructed to execute the boot-superbase sequence. Meanwhile, the initial CLI is closed leaving me with Superbase running on its own, with a useful CLI at the bottom of the screen.

Superbase - sorting space

If you've got a hefty diskful of database files, sorting the data (for a QUERY report for instance) will almost certainly involve Superbase needing to write out .srt and/or .tmp files. Unfortunately, the disk is unlikely to be able to accomodate these files, and up pops a disk full error.

There is an easy way around this problem since Superbase puts these temporary files onto the specified current directory, whereas it's possible to open the database files anywhere. So, let's assume that df1: contains your database disk (and you're about to work with the file called ALBUMS) - put an empty (formatted) disk in df0: and select the directory change option and select df0:. This makes the internal drive the current drive.

Now try to open a file - there are no files listed in the requester (since df0: contains a blank disk) - however, type df1:ALBUMS as the file to open. Superbase will happily go to the external drive and open the file.

You can now perform your sort, safe in the knowledge that the temporary files will be written to your blank disk in df0:.

This principle of explicitly indicating the drive on which a database resides can be very useful. For instance, my record collection has two database files - ALBUMS contains the details of each LP, indexed on record number - TRACKS contains track by track details, but the only reference to the LP that the track is on is through the record number.

When I produce a report, I link the two database files so that each track is listed with the album title derived from the other file. The TRACKS file is now too big to reside on the same disk as the ALBUMS file so I've separated them onto two disks, and I open the files by explicitly specifying their drives. When it comes to the report, the link still works and results in a faster operation.

Whenever you do start working across two (or more) disks, there is one important word of warning. If you open files by explicitly specifying their drive or disk volume (perhaps to perform a cross-disk link as mentioned earlier) it is vital that field names are not duplicated between the files.

Normally, Superbase can cope with this - it adds a suffix to the field name stating which file it came from - so that you may have fields such as

```
RecordNumber.TRACKS and RecordNumber.ALBUMS
```

If you've specified the drive, then this may become

```
RecordNumber.df0:TRACKS and RecordNumber.df1:ALBUMS
```

and the colons will mess things up. By keeping the field names different, Superbase won't be forced to add the suffix and there should be no problems.

Superbase Professional

Amiga Watch seems to have become a Superbase column this time - it wasn't intended, but...!

Anyway, now for the news I've certainly been waiting for for some considerable time. Superbase Professional is now available. On February 2nd, Precision Software took delivery of the packaged Superbase Professional and I went down there like a shot to upgrade my old Personal to the new, all-singing-all-dancing Professional. The cost is around £250, but for registered users of Personal this has been reduced to £99 for an introductory period.

Professional is potentially a truly amazing software product, but it is let down by a lack of coherent thought and an apparent contempt for the end user.

Even their advertising is misleading, with features advertised that are not implemented (and you only discover this fact once you have opened the sealed envelope, the opening of whch commits you to the Precisison Software end-user licence agreement) but there are assurances that upgraded versions will have these features. The only exception is the advertised ability to read DBase III files - agreed, the advertising flyer points out that this is available only on some versions of the program but that flyer was sent out to Amiga Personal users and it would not be unreasonable to assume that this feature was available on the Amiga - but it isn't.

I had expected to be writing a review for this Newsletter but the product is really not up to it yet. I intend to wait until I have spent more time on it since only with this experience can I realistically address some of the problems. However, it is not my intention to suggest that anyone considering buying Superbase Professional should avoid doing so, but I would say that you will not be getting a professional product.

The program's capabilities are fantastic, but inconsistencies within the Database Management Programming language and between the environments of the two packages supplied (the database proper and the forms editor) make life uncomfortable. The manuals are sorely inadequate, with a rather poor style of writing, an unacceptably large number of errors and several glaring ommisions. On top of all this, there are several fatal bugs within the database program which have already caused me considerable grief.

On the plus side, I am pleased to see that many of my original complaints about Superbase Personal are no longer applicable. For instance, Superbase Professional now allows time fields within the database (now I can do my time sheets). It also has a batch mode where all storage operations are held in RAM initially and then written (remarkably quickly) onto disk at the termination of a session - a significant time saver.

The inclusion of a text editor (NOT a word-processor) is also a useful feature - even if it does occasionally corrupt files by spasmodically including a spurious control character.

Additional features have also been added to make it easy to load and save query and update parameters, to specify alternative file paths for Superbase utility files, to provide a user-specified printer intitialisation sequence, to allow the program to work on its own screen within the Amiga, and to define function keys (although their use is very limited due to the fact that the program doesn't distinguish directly between text stored on a key and a command sequence).

The Amiga version is only one of several versions of Superbase Professional for different machines (including the IBM PC and Atari) and I wonder how these versions compare. As an indicator of the lack of professionalism, the user manuals are written for ALL versions! You have to read around the various machine specific options (which are not always made very clear).

Please don't get me wrong, Superbase Professional is potentially a fantastic product and I have used it fairly extensively. First of all, I converted my major Superbase Personal databases - this was not a straightforward operation due to the fact that some field names in my original databases were illegal in Professional. Making the necessary changes involved using the text editor to edit the definition file to change the field names - itself a difficult task due to the occasional corruption by the text editor.

I am now writing a major application program using the Database Management Language, and this too has been beset with problems - many can be attributed to the poor manuals, some to bugs within the program but the major difficulties have been due to a lack of thought in the way that the language interfaces with the forms facility.

Well, that's enough of Superbase Professional for now - this was not intended to be a review, but it seems to have become one! I hope to have a fuller account of the package at a later date.

RAM expansion

As some of you may know, I still use a very early A1000 Amiga with 512k of RAM. Once I'd bought Superbase Professional, I really felt that this wasn't enough and I went out and bought a 2Meg RAM expansion from LAN Computers in Romford. The unit is of German origin, very neat and, unlike some RAM packs, has a duplicated expansion connector to allow additional expansions to be added with ease.

It auto-configures so that the Amiga operating system knows that it's there when it boots up. Should you need a straight 512k machine, then there is a switch to stop this happening without unplugging the unit.

Inside, the unit is packed with chips. The main memory control chips have had their numbers scrubbed off either in an attempt to avoid outsiders reproducing some very elegant circuitry or to avoid outsiders finding out how badly designed the circuitry really is. Either way, front line maintenance becomes impossible.

The cost of this memory expansion (from Robtek) is about £450, although an ICPUG discount through LAN brings this down to around the £405 mark. It's certainly one of the cheapest (although there are cheaper!) I've seen in the UK, and seems well worthwhile.

When I first used my Amiga, it was clear that the initial 256k, single drive system was very limited. With 512k, and two drives life became tolerable. Now I've a three drive system with 2.5 Meg, the Amiga has become a totally different machine. Indeed, given the choice, I would opt for extra RAM, rather than an additional disk drive.

To make the most of this extra RAM, there is a very useful utility on FISH DISK 58 called ASDG-rrd. This is an alternative to the Amiga's own RAM: disk with the great advantage that it can be configured to be exactly the same size as a 3.5" disk and can be made to survive a system crash or soft reset (provided that you don't depower). The device becomes VD0: (Virtual Disk), and can be set up to exactly the same size as a disk drive.

The Virus

There has been a lot of media hype over the past couple of months over the existence of a VIRUS program on the Amiga. A VIRUS program is one which can get into the computer without any help from the user and then reproduce itself so that it infects other computers.

On the Amiga, a VIRUS was planted on a series of pirated disks from the Swedish Cracker's Association (SCA) and soon infected a large number of machines. In principle, the original SCA VIRUS was harmless - it just popped up now and again with a message to tell you it was there. However, its method of reproduction meant that it wrote itself onto any disk with which you booted the Amiga and this meant that some disks (notably those with clever protection schemes) had some of their startup code overwritten.

Harry Broomhall and Dave Parkinson have produced a significant treatise on the SCA VIRUS and this represents what is currently known about the details [this article is presented elsewhere in the Newsletter - Ed.] - however, word is coming in to Todd-Towers of a new VIRUS, less benign than the original. It is reported to be rather more vandalistic in its effects.

So, how do you avoid the VIRUS - well, first of all you avoid pirated software like the plague (literally!). You also only boot the Amiga from disks which are write-protected (no VIRUS can write itself, or anything else for that matter, to a write-protected disk). If you suspect that a disk has been infected then you MAY be able to rewrite the infected blocks by using the INSTALL command - put your disk in df1: and use INSTALL DF1:. However, only ever do this to a backup copy of the disk and then check to see if it still boots up - if it doesn't then the original disk had special startup code on the disk and was probably not infected anyway.

⁂

ANNUAL GENERAL MEETING

We announced in the last Newsletter that the Annual General Meeting would take place on the 7th May. However, the location has been changed from the Westminster Hall to the Charing Cross Hotel, which is very close. It will still be held at 2 O'Clock though. This is your annual chance to meet the outgoing, and elect the incoming Committee.

⁂

ARE YOU USING THE RIGHT DISKS?

by Pete Miles

There has always been much talk about whether or not pricey 3.5" disks are a better bet than those bought during the last 2 hours of a computer show.

The primary difference between cheap and expensive disks is one of manufacturing quality, and that of course costs money. Many people forget that the cost of the disk is many times less than the value of the material itself, sometimes 100 times less, if indeed that figure is quantifiable.

The main cause of all those read/write errors and occasional 'not a DOS disk' is the relative levels of the signal to noise ratio. This is made up of the surface noise of the heads passing over the iron oxide particles of the disk and the data signal level. For the most part this relationship doesn't matter as you will be writing and reading your own disks, therefore any errors are consistant and relatively transparent to the disk drive. However, when you start passing disks to other users the errors will be more likely to crop up. It's all to do with the 'clipping level' and 'certification', more jargon words to remember.

Clipping level, expressed as a percentage is the previously mentioned ratio between the data signal level and the noise level. On cheap disks this can be as low as 40%, whilst on the more expensive disks the level can be as high as 70-75%. This is important because the greater the clipping level the more inaccurate the head alignment to the track can be and still read data. This crops up most often, as we in the library have found, when third parties try to read disks on different machines. Head alignment only has to be off very slightly and you get a read/write error.

The second part of the problem is certification. This is generally measured by the American Standards Institute (ANSI) who state that only the data tracks must be certified. The test also says that the tracks must be free from flaws that may give rise to errors. Unfortunately this test does not check for errors between tracks. Some of the more reliable companies are now checking for gap flaws. This is to ensure that these flaws do not creep onto the data track.

All this means that disks with a clipping level in excess of 70% and certified on and between the tracks will have a greater degree of interchange reliability between drives with the minimum chance of read/write and hard disk errors.

It is claimed, and rightly so, that you can buy 3 or 4 cheap disks for the price of one expensive disk. What you cannot do is put a price on the loss or coorruption of date and the sheer frustration of continuing problems. I know from bitter and expensive experience.

TEXAS TALES

by Betty Clay, Arlington, Texas

This month, my news is not neatly arranged about one single topic. Rumours and products of several kinds have been most interesting, and I want to tell you about all of them.

Version 1.3

Rumours concerning a 1.3 revision of the Amiga software have been circulating since early last summer. When version 1.2 was under development, it was relatively easy for anyone to get a copy of the unfinished code, and almost everyone tried a number of alpha and beta versions. We knew what was being developed. There were problems with that, however. Some programmers began to write their software based on those pre-release versions, and when the final version came out, the software did not work properly with the finished version.

This time, the Commodore people have been terribly tight-fisted and close mouthed about the new version. Questions about the release date have usually elicited a response similar to "when it is fully tested and known to be correct". During the past few weeks we have begun to receive messages from them that give some firm information. We had been told that version 1.3 would be released some time during the spring.

I feel that the positive information coming out may indicate that release time is drawing near. The major points of improvement promised include a greatly improved printer device, improved file system, better handling of both hard disks and floppies, an aux: device, and built-in pipes. Now, pipes are not a familiar feature to me. The Usenet folks speak of them constantly, and apparently find it difficult to get along without them. As I understand it, a pipe allows you to use the output of one program as input for another. There are some fixes written by various Amiga programmers that give this capability, but version 1.3 is said to have this ability built in to the system properly.

We are told that version 1.3 will include both a Kickstart and a Workbench disk for owners of the Amiga 1000; A500 and A2000 owners will receive a Workbench disk. The ROMs built into those machines are said to have hooks through which new code can be loaded from the Workbench and still work with the ROM-based system.

Improvements in disk-handling and other filing system capabilities have been a truly major thrust for version 1.3. One Usenet writer said that the new system may make disk accesses as much as three times as fast. Many bugs have been fixed, too. For example, have you had problems with the file requester that says volume xxx has a read/write error? Sometimes, you can keep hitting cancel repeatedly, but nothing happens. If you remove the disk you get the more urgent requester that says you must replace volume xxx In drive n!!!. So you jiggle disks back and forth until you grow weary and reset the machine, losing all of your work. This problem is caused by a three-second timeout problem in AmigaDOS. The disk has been altered, and the DOS is trying to write the corrected bitmap back to the disk. If it encounters a bad block while writing the bitmap, you encounter this problem and loss of work. I have no immediate answer to the problem, but Steve Beats of Commodore has promised that it is fixed in the new file system.

My personal favorite of the 1.3 promises the improved printer support. I have never been able to use the excellent software I have (such as Pagesetter and Dpaint) because I did not have one of the printers on the Workbench disk. I could find drivers that would let me use a few of the features of my Star-SG-10, but for most things, it simply cannot do its thing when used with the Amiga. The Wordperfect Corporation has been trying for months to create a satisfactory driver for this printer, and has not been able to do so. The promise of a new printer driver - easier to use, faster, and capable of supporting more printers - is most welcome. The first real leak of 1.3 material that has come my way has been some of those new printer drivers, along with the new printer device that makes them work. These are on one of the disks I am mailing to you this week (February 25). Nothing there for any of the Star printers, I'm sad to say, but there are drivers for EpsonQ and EpsonX, among others.

Developers' Conference

Commodore has announced a conference for Amiga developers, to be held in Washington, D.C. April 28 through May 1. Items to be discussed include versions 1.3 and 1.4 of the operating system; slots for the A2000; peripherals for the A500; new Commodore products; various specialized topics such as IFF, sound and audio, working with the special chips, and discussions of libraries such as the Janus library and the math library. This conference will be at l'enfant hotel, just a few blocks from the Smithsonian institute and other tourist attractions.

Forgotten paths?

A number of people here have recently mentioned the same small problem. On certain occasions, they have found that with particular disks inserted in the drive (any drive), the Amiga would forget all known paths. Upon removing that diskette, the paths are remembered again. One user thought he might have acquired a new Virus, so he ran install on his disk. No change. He formatted a new disk and copied the files over - the problem disappeared. Then he did diskcopy on the original, and the problem remained on both the original and the exact copy. The problem seems to be that the Amiga cannot accept disks that have the same names as those of the directories or devices that are coded into the system software. For instance, one of my friends had named his compiler disk C. This disk was causing the forgetfulness mentioned in several discussion groups. The Amiga has hard-coded C: into its paths. When a disk named C was inserted, that disk became the C: directory as the Amiga saw it. One of the developers suggested that there are a variety of these. He suggested that you might want to try naming a disk something like libs or devs or df1 - just for 'fun', of course.

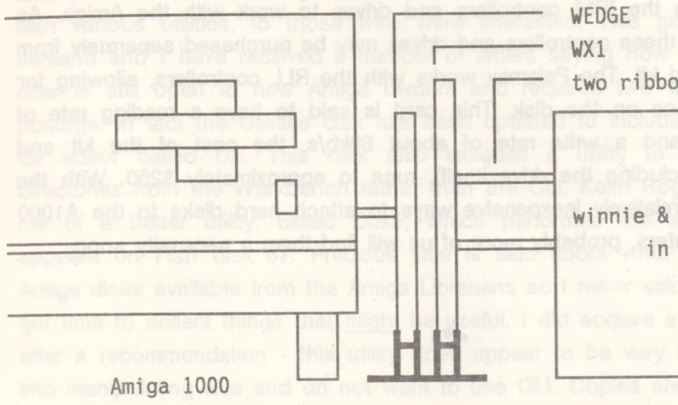
Hard disks for the Amiga1000

Those of us who have elected not to move up to the Amiga2000 have really been feeling left out recently. Many of us remember a time when having a tape drive was a bit of a status symbol. In my own case, I began computing with an advanced system - an 8032 with 8050 drive. But my school system set up its computer labs with pets and tape drives that same year. We were considered quite progressive at that time. Recently, however, hard disks have become the status symbol in these parts. Now really - who ever thought a Commodore user would come to consider a hard disk to be a necessity! Perhaps the same dreamer who would have dared suggest we would need 2.5m of memory? well, with the coming of the A2000 and its ability to handle the relatively inexpensive hard disks made for the big blue computer, a hard disk has suddenly become a major topic of conversation. In the 2000, it is simple to install one. For the 500 and 1000, it is expensive and difficult.

Two products have been released in the States recently that will make it easier for us to add these items, though I do not have either myself. Here is some information about them, mostly taken from Usenet.

The wedge is a two piece interface that connects to the bus connector on an A1000 or A500. The first piece is a vertical board about 6 long and 2.5 high, with the bus connector approximately in the middle. The second piece is a backplane that sits horizontally under the first board and has two female connectors. The first connector holds the wedge and the second holds the controller card, such as the Western Digital WX1 or the DTC5150. These two cards are tested and recommended. The wedge allows you to connect up to two 142 megabyte IBM style hard drives.

Here is a physical description from Bill Henning:



The wedge is plugged into the computer and a small XT-style backplane, which also holds the hard disk controller. The hard disk ribbons go to the Winnie in whatever box is used, which also holds the power supply for the drive. The wedge and controller can be powered from the Amiga or the drive's supply. I am currently using an XT-Compatible (read cheap) fliptop case with a 150w power supply, which powers the wedge and controller and Winnie.
- B. Henning

The wedge comes with software that is used for formatting the disk and parking the heads. The cost of the wedge and software is given as $175 CDN for User Group members; $195 CDN for NON-User Group members. This translates to only about $130US. We are all user-group members, aren't we? Then, you must also have a controller card and the hard disk itself. Most of us would also want a case, and there has to be a power supply. The suggested controller card is the Western Digital WX1 or DTC5150. A tour of the computer shopper, a periodical that specializes in large ads from mail-order houses, indicates that the controller would cost less than $100, and the drive would cost from about $275 (20m) to $850 (70m). Cases that included a power supply and fan were selling for $40 last weekend in the vendor area of Infomart in Dallas. Using the lowest prices I could find advertised, we would have a cost of about $130 for the wedge + $65 for the WX1 + $199 for a 20m drive +$40 for the case, fan, and power supply, making a total of less than $500 to have a 20m hard disk up and running.

The other product being discussed recently is called the palamax card and software. This is a kit which the purchaser must put together. Several of the technical types have written about this product and seem quite pleased with it. This card allows the IBM controllers and drives to work with the Amiga. As with the wedge, these controllers and drives may be purchased separately from the Palamax card kit. The Palamax works with the RLL controllers, allowing for more useful space on the disk. This card is said to have a reading rate of about 200kb/s and a write rate of about 80kb/s. the cost of the kit and materials (not including the drive itself), runs to approximately $250. With the arrival of these relatively inexpensive ways to attach hard disks to the A1000 and A500 computers, probably more of us will find them a necessity soon.

⁂

PERILS OF PORTIA, AGNUS & DAPHNE - 7

by Brian Grainger

These are the dying days of February. In a normal year it would be the last day. The January Newsletter has only just arrived so I havn't yet started writing for the next one. A letter comes from Brian Fowler asking for my latest 'Perils' so he can put it up on Compunet. I'd better sit down and write something!

I should first of all point out to those who have not found out already that Brian Fowler runs an Amiga slot in the ICPUG area of Compunet. All my 'Perils' are put up there, usually before they appear in the Newsletter.

Well it looks as if the virus epidemic is under control. From the articles in the last Newsletter we should all have a clear idea of the problem. There are now a number of killer programs available. I have one from a German source and a second from SCA themselves. The latter is rumoured to have a second generation virus on the disk. So far I have not seen the effects of this virus and other users of the program have not reported anything to me. This disk includes a program to protect disks against catching the virus in the first place-

to follow the medical analogy, an immunisation program. The German program is not quite as comprehensive but does the trick, killing the virus. Both disks appear to be distributable free of charge so if anybody wants one send me a disk and return postage and I will do a copy. If you want both versions two disks will be required.

Last year I wrote about my customised Workbench and offered copies, along with various utilities, to those who were interested. This generated a small demand and I have received a number of letters saying how useful it is. The offer is still open to new Amiga owners and requires two disks plus return postage. In fact the Utilities disk has been updated to include a very versatile file editor called UE. This disk also includes a utility to manipulate disk directories from the Workbench rather than the CLI. Keith Rogers wrote to tell me of a better utility, called Dux5, which performes the same function. It appears on Fish disk 67. Precious little is said about what appears on the Amiga disks available from the Amiga Librarians so I never ask for any. I havn't got time to collect things that might be useful. I did acquire a copy of FISH67 after a recommendation - this utility does appear to be very useful if you are into manipulating files and do not want to use CLI. Copies should be obtained from the Non-ICPUG Amiga disk copiers and not me.

I have had some queries relating to use of the Amiga 2000 with the Bridgeboard. I do not own an Amiga 2000 but my local ICPUG group is fortunate in having a member who does, Dennis Gortmans. When he had a number of problems with his 2000 he was fortunate to arrange through his employer a visit by a Commodore representative. They solved all his problems, mainly by providing some updated operating disks and manuals. It would appear that in the great Commodore tradition the Bridgeboard was initially supplied without a manual! This left users in the dark as to how to configure the 3-1/2 disk drive as an MSDOS format drive. The manual also mentioned that it was not possible to drive the Amiga serial port from the Bridgeboard. A PC board is required for this. Another thing the Bridgeboard cannot emulate is sound! Dennis has kindly offered to be a source of information for anybody with queries on the A2000/Bridgeboard combination. He can be contacted at 168 Westmorland Avenue, Luton, Bedfordshire, LU3 2PU. Remember to include an SAE for any replies. He can also be contacted by phone on 0582-490128.

Another question that appears on a regular basis is which is the best buy, the A500 or the A1000? Since the A500 arrived many dealers have been offering very good prices on the A1000, even cheaper than the A500 sometimes. This is presumably to get rid of stocks. I have not owned a A500 but it is perhaps useful to mention the differences so that anyone in the position of having to make a choice can do so objectively. The A1000 was aimed at the business market, and the A500 the home market. This is reflected in the design of the machines - the A500 processor unit has a built-in keyboard and external power supply box. The A1000 on the other hand features a built-in power supply and separate keyboard. I find this to be a more flexible combination. Both machines have 512K memory (the A1000 with expansion which is invariably included in any deals). The A500 can be expanded internally to 1Mb whereas the A1000 requires external expansion which invariably leads to higher prices. This may not be important at present, but if a 1Mb standard A500 is released and software begins to use all the memory, who knows?. From what Mike Todd has said Superbase benefits from the maximum amount of memory available, so this is a factor to consider if purchasing an A1000. Thirdly, the A500 features a keyboard similar to a PC, wheras there are some PC keys not implemented on the A1000. So far I have not found this a problem. In fact the A500 comes in two different keyboard configurations. There are very minor differences, a Commodore rather than Amiga key and the " and @ keys where we in the UK prefer them. The expanded A500, (and standard A2000), has a built-in battery-backed clock. This can be quite useful and can alter the startup sequences of software written for such machines. Such software will not run without modification on the A1000. I have only come across this problem once so far and it is fairly easy to correct once you know what you are looking for. Any references to the setclock command must be removed. There is one other difference which has come to light. From the amount of complaints made on Micronet and elsewhere it would seem the A1000 is much more reliable than the A500. It sounds like Quality Control, for it is not usage which causes the problem, but the fact that you may have to exchange units at the start to find a good one. A member of my local group had to make a number of exchanges before he found a reliable one.

Back in one of last year's Newsletters Jim Kennedy wrote a glowing review of Wordperfect. I had an opportunity to play around with this program recently, and found it to be a very complicated wordprocessor, not as easy to "turn on and go" as Scribble. This is not my reason for mentioning it however. There is a current offer enabling you to get a rebate if you trade in Scribble when purchasing Wordperfect. While using Wordperfect I tried to retrieve a Scribble generated file. Wordperfect noticed that it wasn't a Wordperfect file and gave the option to continue retrieval. Having done so, it looked okay on the screen, but as soon as I pressed a key all the end of paragraph keys seemed to disappear. I did not have a lot of time to use Wordperfect and I may have configured it wrong or I was uncertain what to do. Nevertheless, I would certainly ask some questions if I were trading in Scribble. I would not like to have to retype all my standard letters.

Coming from a Commodore 64 environment, one of my preoccupations since upgrading to the Amiga has been to find a method of transferring files from a 5.25" Commodore DOS disk to a 3.5" AmigaDOS disk. My main concern was to transfer my database of COMAL users. This I have now done thanks to Brian Fowler, meaning I use my 64 very little now, basically for COMAL and a couple of programs written in BASIC which keep a track of my finances. These I have not yet rewritten in Amiga BASIC. Perhaps I will not have to. From America there is now a 64 software emulator for the Amiga. It is not perfect but it is said to emulate all BASIC and machine code programs. This is not quite right as some Butterfield-derived machine code did not run, but nevertheless it is pretty impressive, albeit a bit slow in running. It means I may not have to rewrite my programs. However, how do I get my programs on to the Amiga? I still have the transfer problem. Well this emulator comes with a cable which allows you to connect a 1541 drive to the Amiga. It would seem that the problem is solved. 1541 operation is by software and you can even emulate a 1541 disk on an AmigaDOS formatted disk. I am quite impressed by this product and in my opinion it fills badly needed upgrade gap between the 64 and the Amiga. The only drawback is that it cannot run COMAL graphics but that is hardly surprising. The 64 has RAM under the ROM in which to store hi-res graphic screens. The Amiga only has RAM so the emulator can only store one thing at a particular memory address, presumably the 64 ROM. Perhaps the next emulator can provide a solution by regarding the RAM under the ROM of the 64 as a separate area of Amiga memory.

My final item this time concerns something I have actually DONE on the Amiga. As an old hand with Commodore machines but new to WIMP environments it is very easy to say that WIMP is too slow, and try to use CLI as often as possible. Just recently I decided to tidy up my work disk and in doing so felt that perhaps I had misjudged the use of WIMPs. Basically my work disk consists of various word processor files which are categorised depending on whether it is to do with COMAL 0.14, COMAL 2.01 or something general. I then have a database of COMAL users. Finally I have some DPaint pictures and brushes. Before my tidy up all these items were in the root directory of the disk. Because this caused all the items to be read when my wordprocessor looked for files to display for potential loading I decided this was not very efficient. I decided to create a separate directory for each of the items: General docs, COMAL 0.14 docs, COMAL 2.01 docs, etc. After a while it became clear that making each directory and copying each file and its icon with the CLI copy command was a pain. I decided to start using the Workbench. It was fairly easy to create directories by copying the EMPTY drawer icon onto my work disk and renaming it. Copying files was also made easy when the files had an icon. Simply move the icon into the appropriate drawer. This has the advantage of moving both file and icon definition at the sme time. With careful creation of directories one can move lots of files at once by moving a drawer from one place to another. The only problem came with my Superbase files which did not have an icon attached. I had to use CLI for these. This experience led me to two conclusions. First, if a software package provides the option of creating icons at the same time as it creates files, then take it. Mind you, it would be nice if such software would also delete associated icon files when the file is deleted. This is something Scribble does not do and I get very irritated by it. Second, I would like to see more software provide this option to create icons. Superbase is a particular offender. The WIMP is not much help if software does not create icons.

While carrying out this clean up of my work disk I decided to tidy up the windows displayed. The window displayed when I opened the disk simply showed the various drawers. I would then click on the COMAL 0.14 docs drawer, for example, to show the icons for those documents. Initially I followed the idea that seems prevalent with other software - the second window was displayed below the first. I have come to the conclusion this is not a very good idea. When you have finished and want to close up all the windows, you have to keep moving the mouse to find all the different close gadgets. I finally solved this by overlaying my windows instead. This meant the close gadgets for each window were on top of one another. To close everything off was a simple matter of going click, click, click! There is a disadvantage in this technique of course. It is not as easy to close off some of the intermediate windows should memory be in short supply. In my case I have not found this too much a problem so I offer this tip for others to make use of.

I think that covers my experiences for this time. Happy Amigaring.

⁂

LAN COMPUTER SYSTEMS

A500 PACK 1

A500 Computer
1084 Monitor
120 cps Printer
Transformer
The Works
£679.00 + VAT

A500 PACK 2

A500 Computer
1084 Monitor
Star LC10 Colour Printer
Transformer
The Works
£779.00 + VAT

SINGLE ITEMS

A500 Computer	£329.00
1084 Monitor	£189.00
120 cps Printer	£119.00
Colour LC10 Printer	£199.00
LC10 Printer	£169.00

Prices + VAT

SOFTWARE

Works	£89.00
Transformer	£32.00
Wordperfect	£160.00
Superbase Professional	£174.00
Vizawrite	£65.00
Superbase Personal	£65.00

Prices Include VAT

Come and see us at 1863 High Road, Chadwell Heath, Romford Essex. Just round the corner to Chadwell Heath station, opposite Mansted Gardens (easy parking) or phone 01-597 8851. Show room open Monday to Saturday 10.30 a.m. to 5.30 p.m.

How to order: Enclose letter with cheque, postal order or credit card number for amount including VAT and delivery charge. Credit card holders may order by telephone. Contact the sales desk. Dispatch is normally within 24 hours. Official orders from educational establishments, Local Authorities and Government Departments are welcome; Contact the Education Department. Export Hotline: 01-597 8854. Telex: 995548. Dealer and export enquiries, contact the Trade Department. Prices are exclusive of VAT unless otherwise stated, and correct at the time of going to press.

Large Software discounts given to members quoting membership number. Members should ask for Mark or Mike.

PLUS 4 SCRIPT/PLUS BUG BRIEFING UPDATE

by Richard G Hunt

Judging by the letters I have received, the article in the last issue on two Script/Plus bugs has elicited some excitement amongst you Plus 4 people out there. It would seem prudent therefore to pass on additional information which has come to light since.

1. Save/Replace and Disk mode bugs. According to one member, these do NOT seem to appear when Script/Plus is used with a C-16. We even compared ROM details!

2. Alignment bug. David Muff reports: 'This bug occurs, on an MPS 803, when enhanced (double-width) characters are printed centred, right-aligned, or in a header/footer. Script/Plus calculates the print position treating the double-width characters as if they were single width. It is easily corrected by adding a number of spaces equal to the header/footer text length after the enhance-off symbol (ESC]) eg:

`(CTRL 9)hd1:,,(ESC [)This is centred(ESC ])(16 spaces),(RETURN)` or:

`(CTRL 9)hd1:,,(ESC [)This is right aligned(ESC ])(22 spaces),(RETURN)`

I do however advise you (or anyone else) not to use centered and right-aligned text in the same header. Also at least one blank line should be printed after the header/footer to absorb spaces that may "overflow" on to the next line.'

3. Erase all. Not strictly a bug, rather an 'undocumented feature'. ESC SHIFT S is an alternative to ESC E A, the erase all command. However this one gives you a chance to abort before clearing the screen. (Thanks to David Glass.)

Given the interest in Script/Plus, its relative simplicity notwithstanding, if anyone has some useful tips, hints, and techniques, please send them in for inclusion. For example, there is much interest in achieving descenders on printers for letters such as "g" and "y". There is a program in the library that alledgedly does this for the MPS 803 (as I have a 1526, I can only assume it works). There is no program I know of that performs a similar function for Script/Plus, although it is possible to define a special character. Alas, it is only one at a time, but it could be used to customise the letters g or y, though without descenders, because they already descend as far as possible in one character. Usually, the special character is for unique symbols or foreign accents.

Listed below are the format statements to create German Umlaut letters. The control character for Script/Plus is CTRL-9 which gives the reverse video *. In the text the character assigned is a number created with ESC and the selected number, eg ESC-1.

a umlaut
```
CTRL-9/0=254:sa5,0,4,41,169,41,170,30,1
```

o umlaut
```
CTRL-9/1=254:sa5,0,0,28,162,34,162,28,0
```

u umlaut
```
CTRL-9/2=254:sa5,0,0,60,130,2,130,62,0
```

sz/ss
```
CTRL-9/3=254:sa5,1,254,146,146,146,146,108,0
```

simple umlaut
```
CTRL-9/4=254:sa5,0,4,0,4,0,0,0,0
```

French accented letters may be created similarly:

c cedilla
```
CTRL-9/0=254:sa5,24,36,37,39,36,20,0,0
```

e acute
```
CTRL-9/1=254:sa5,0,28,42,42,106,154,0,0
```

e grave
```
CTRL-9/2=254:sa5,0,156,106,42,42,26,0,0
```

a grave
```
CTRL-9/3=254:sa5,4,174,106,42,42,28,2,0
```

The only drawback is that each time a different character is used it must be preceded by a format statement on a line of its own. This makes some words impossible to print and often messes up paragraphs.

LIST TO EPSON

by John Tanner

In Vol 8.4 p337 an article of mine included a utility program for the C64 to produce listings conveniently on non-CBM printers. The problem with other printers is that they use the screen code characters found in program listings as function codes. This makes messy listings which jump in and out of condensed type or, worse, turn off the printer as they do with my Brother daisywheel.

The solution is equally relevant to the C128, of course, and the program below is essentially as before with some REMs added and tailored to function in C64 or C128 modes. I suggested in the previous article that having listed the program to a disk file it could equally well, if it was not too long, be read into Superscript and then printed. This was true of the Superscript program I used to use with my 8032, but I find that Superscript 128 does not make the code conversions in the same way and consequently attempts to make hard copy can still be unsatisfactory.

I have therefore added a simple routine which can be used instead of the 'seq to epson' program to convert the sequential file produced by the 'prog to seq' program to a fully compatible sequential file. This can be read by Superscript, edited if required, and will produce clean hard copy. I also include a program to read the file produced by 'prog to seq', or the Superscript compatible file, and convert it back into a program file. This can be used to re-create the original program or to merge a program component into an existing program. To do this load the 'seq to prog' program, delete line 20000, which is only used to resave the program, and then list the program to screen. Enter the command to load the main program to which the component is to be merged and then do a 'screen merge' by moving the cursor over the lines of the 'seq to prog' program to enter them with the RETURN key. Type 'run <ret>', and give the name of the sequential file containing the component to be added.

If the merge is from a Superscript file, it will be necessary to re-edit the merged section of the program manually to reinstate the screen codes where they appear between quotes as they will have been converted from the reverse field form shown in a normal listing to the equivalent normal character. This can be done by re-entering the quote followed by the appropriate function key (cursor down etc.) or by pressing CONTROL 9 to get into reverse field and over-write with the alpha character shown. This latter method has the advantage of being able to skip over characters which are correctly displayed using the CRSR key and also requires no interpretation to identify the function. Incidentally, almost all such codes can be represented by non printing-characters. The only specific exception is character 13 (m) which produces a syntax error. It is also wise to avoid character 27 which can be entered as a reverse field left square bracket and will function happily, but it will not list, which is very inconvenient.

If a printer which uses different codes from the Epson is used line 4 of the 'seq to epson' program will need to be amended. The secondary address of 14 shown in this line is that which I use with the Brain Boxes Centronics Driver. It should be omitted if your printer is connected to the Serial Port.

```
1 rem lists a program file to a sequential file on disk and
2 rem loads the 'seq to epson' program to output to a non-cbm printer
3 rem may be used with 'seq to text' to produce a Superscript file
4 rem or with 'seq to prog' to merge with the current program
5 input"Sqqprogram name";f$:z$="0:"+f$:q$=chr$(34):use$="seq to epson"
6 print"10"q$z$q$",8qqqq":f$="!"+f$:b=208:q=841:c64=peek(215)=13
7 print"open2,8,2,q$@0":f$",s,w"q$:cmd2:list
8 print"pR2:c102:10"q$us$q$,"8qqqqqrU":if c64 then b=198:q=630
9 print tab(15) f$ "s":poke b,4:for i=1 to 4:poke q+i,13:next:end
20000 save"@0:prog to seq",8:end:rem for c64 or c128
```

```
1 rem uses output file from 'seq to text' to convert to program file
2 rem edit required to reconvert screen codes etc. used with output
3 rem file from 'prog to seq' will merge with current program
4 inputS"file name ";f$:open2,8,2,f$
5 get#2,a$:b$=b$+a$:ifasc(a$)=13 then b=208:q=842:c64=peek(215)=13
:goto 8
6 if st or len(b$)>2 and val(b$)<9 then close2:end
7 goto 5
8 if c64 then b=198:q=631
9 print"Sqq"b$poke152,1:g05s;:b$=:poke b,2:poke q,13:poke q+1,13 :end
20000 save"@0:seq to prog",8:end:rem for c64 or c128
```

```
1 rem reads ascii prog file and converts control codes to character
2 rem equivalents & outputs to printer dev. 4 - epson codes at line 4
3 input"program name";na$:z$=0:+na$:open2,8,2,z$:open4,4,14
```

```
:e$=chr$(27)
4 print#4,e$"@"e$"R"chr$(0)"o"e$"Nd":rem reset,usa,condense,skip perfs
5 get#2,a$:e=st:z=asc(a$):if z=13 thenprint z$:print#4,z$:z$="":goto5
6 if z=10 or e then close2:close4:goto 9
7 if z<32 or z>127 and z<160 then z=z or 64
8 z$=z$+chr$(z):goto 5
9 print"qqload"chr$(34)"prog to seq"chr$(34)",8QQQ":end
20000 save"@0:seq to epson,8":end
```

```
1 rem uses file from 'prog to seq', writes a S/script compatible file
2 input"file name";f$:z$=0:+f$:open2,8,2,z$:a=0:dima$(500)
:f$=mid$(f$,2)
3 get#2,a$:e=st:z=asc(a$):ifz=13 then a$(a)=z$:a=a+1:print z$:z$=""
:goto 3
4 if z=10 or e or a>500 then close2:a=a-1:print"writing £"f$: goto 7
5 if z<32 or z>127 and z<160 then z=z or 64
6 z$=z$+chr$(z):goto 3
7 z$="@0:£"+f$+",s,w":open2,8,2,z$:fori=1toa:print#2,a$(i):next:close2
8 print"Qload"chr$(34)"prog to seq"chr$(34)",8QQQ":end
20000 save"@0:seq to text,8":end
```

AUTOBOOT EXTENDED

by John Tanner

A 'respectable' programmer never allows the user to face the 'READY' message complete with the intimidating cursor flash if he can conceive of any way of avoiding it. My 'Automenu' program described in Vol.9/2 goes a long way towards this end. The C128 has an 'Autoboot' facility which could load and run the Automenu but as I use an Epson printer from the user port it is first necessary to load code to enable the user port. The code I use is a driver program supplied by Brain Boxes which has a separate driver for C128 or C64 mode. It is a machine code program and leaves the user in command mode when loaded. It also requires an input from the user to select a particular driver according to where the code is to be stored.

It may sound a simple matter to instruct computer users to load and run the necessary driver, but if you have ever tried to write such instructions to be foolproof for any user you will know that it is better avoided. It would of course be a simple matter for the driver program to load and run the Automenu, but being a simple programmer I had to find a way using BASIC. The solution I found was the following short program, which is tailored to operate in C64 or C128 mode, and will cause the appropriate driver program to run. It selects option 2 to store the code and then loads and runs Automenu. It uses the Commodore programmers secret weapon, the dynamic keyboard, to simulate keyboard entries to relieve the user of the chore.

Autodriver is autobooted in C128 mode but in C64 mode it is loaded by the Automenu program, always the first program on the disk. It requires the 'load*,8' and 'run' commands to be entered by the user if booting in C64 mode. The 'S', 's' and 'q' characters shown inside quotes are the Clear screen, Home and Down cursor characters respectively. I will describe the function briefly as you may wish to tailor the program to your differing needs.

Line 1 sets the keyboard buffer variables etc. for C128 mode and then checks if using C64. If it is a C64 the line 2 substitutes the C64 variables. line 3 clears the screen, moves the cursor down three lines, prints a dL"loader.c?? command, moves the cursor down four lines, prints the 'rU' (run) command and homes the cursor. Line 4 pokes 16 into the location which specifies the maximum length of the keyboard queue, pokes 16 into the current length of the keyboard queue, reads the 16 data items and pokes them into the keyboard queue and ends the program to allow the forced key strokes to operate.

The data items have the following functions.

```
13 (RETURN key) operates the printed 10"loader.c??,8 command
13   ditto      operates the printed rU command to run the loader
50 (2 key) required input into the loader.c??? program.
76,207,34,48,58,42,34,44,56      prints 10"0:*,8"  on the screen
13              operates the above load command
82,213     prints rU on screen (short form of run)
13              operates the run command
```

```
1 xm=2592 : nd=208 : ke=841 : m$="128" : c64=peek(215)=13
2 if c64 then xm=649 : nd=198 : ke=630 : m$=64
3 print"Sqqq10"chr$(34)"loader.c"m$chr$(34)",8":print"qqqqrUs":j=16
4 poke xm,j:poke nd,j:for i=1 to j:read a:poke ke+i,a:next:end
5 data 13,13,50,76,207,34,48,58,42,34,44,56,13,82,213,13
20000 save"@0:autodriver,8":end:rem for c64 or c128
```

⁂

SUPER* CORNER

edited by Peter Hauke

Letters to me at 1 Montpelier Road, Ealing, LONDON W5 2QS

Fingers at the ready. On your marks, and they're off! Tappety-tap, tappety-tap, clickety-click, ding! I received a very interesting letter from Australia recently all about Superbase and Genealogy. It seems there are quite a number of members interested in this subject. I've sent off to Australia for more information, and hopefully an article will appear in a future Corner - maybe even a seperate Supertree column under the Super* banner? There's only one way to get a column and that is to send in articles. But before the deluge comes - don't forget to include a disk with the program, a dummy database and the article on it.

Before I move on, a word or two about letters. Last week I received the type of letter that all editors love to receive. I'll let you judge for yourself why I was overjoyed. This is how the letter was headed:

```
Superbase 128 Version 2.07              A N Other
                                        Any Road
My system: C128/1571/1901               Any Town
                                        Any Post Code
ICPUG Membership No: 543210             Tel: 01-234 5678
                                        4 March 1988
```

A disk was enclosed with the sender's address and title of the query written on the label. The disk was empty apart from the program he had written and the database itself. The letter was printed and included on the disk. A stamped addressed envelope (DL size at least, please) was enclosed for my reply. My thanks to the writer for sending me the perfect example of a query letter. If only all letters were like that...

It is always important when writing for advice to include as much useful information as possible. Often much of it will be redundant, but you are working for example on Superbase then information such as file definitions, programs, specimen printouts and even on occasions the start.p program is useful. The problem should be described clearly and succinctly. There is nothing more frustrating than being unable to help somebody because you can't work out what the actual problem is!

And now a word from Precision Software. Jim Kennedy mentioned at the end of last year that Version 3.00 of Superbase 128 would soon be available. Work on Version 3.00 is in hand but as yet it is not available, so there is little point in hassling Precision for a launch date.

This paragraph is for the consumption of Script Plus users only. Script Plus is effectively Easyscript on the Plus 4. This means that there are no menu prompts and the user needs a manual to operate it. Pete Maclaurin has arranged a special offer for existing Script Plus users. Send him a cheque for 5 pounds (NO Cash, NO Postal Orders, NO Credit Cards etc. just a straightforward cheque) and a stamped addressed jiffy bag or other suitable packaging and he'll send you back a Script Plus Cartridge. No manual is included as this offer is open to existing Script Plus users only. Precision say that as the amount involved is so small they won't be issuing invoices and no correspondence will be entered into.

The Superbase section this time is quite large. This is because several ICPUG members wrote to me with a number of seperate queries and this resulted in the extra programs. If you have a problem then do write to me at the above address. Letters with a stamped addressed enveloped enclosed elicit a prompt reply. If you have just solved a problem or you have written an interesting program which you would like to see published then send me an article.

I am also interested in hearing about the different uses that people have found for Superbase, from recording weather information to maintaining list's of union members, from maintaining expense records to running cat shows! Don't keep your programs secret. Send them to me and I shall collate them all onto a disk for inclusion in the C128 library. But don't stop with just your programs. Superscript command strings (or macros) will be just as welcome. John Marchant sent me a list of macros. He says that although they are much simpler than those suggested in Robert Erskine's article last September, they are nonetheless very useful to him. This is very true. One of the nice features of Superscript is the ability to tailor the system to the way you want to work. As before, more of the same.

It is very easy to believe that other people are only interested in spectacular solutions. This is by no means true. Most people, and include me there too, have very ordinary problems which we try to solve with the least amount of effort. So do send in your command strings. Even if only one command string is different, it may be the very one that somebody else has been searching for!

Letters have been coming in regularly and this is very heartening. It is nice to know that there are still lots of people out there programming away on Superbase and using Easyscript and Superscript for wordprocessing, whether it be on the 64 or the C128. Haven't heard much from 8000 series users. Anybody out there? Not all the queries are strictly Super* queries but "c'est la vie"! Those of you who wrote in the week beginning 19 March may have wondered if your letter got lost. No, I sloped off to the slopes for a week!

If you are debating whether to write or not then the answer is "Yes"! Even if you think that your problem is silly, still write. I can remember spending hours trying to find the solution to a problem, and kicking myself when I finally found one. It is often very much a problem of "Can't see the wood for the trees" (or is that the other way round?). Remember, my psychic powers are very limited and I can't read well between the lines!

I get the impression from a number of letters that people are not making enough backup copies. One backup copy per disk is the absolute minimum you should make. Two to be on the safe side and more to be absolutely secure. At one stage I used to run an accounts package on an 8000 series system (using Superbase). I had twelve disks, one for each month, as well as a couple of current month backups. With disk prices so low now it is prudent to backup as often as you can. You should always run tests on a dummy database or make a special backup just for developement. You should NEVER test programs on data which you cannot afford to lose!

I have been talking to Chris Wright, the C128 library organiser, and he has indicated that the Super* library disks could be updated. At present there are three disks in the library. I have sent off for copies of these disks and will add a few items to them myself. If you've made any improvements to the library disks, then do please send me a copy of your work for evaluation. Hopefully there will be some new disks in the library by the next time we go to print.

And finally, a bit of good news for all ICPUG members who upgraded some time ago to the Amiga and have waited patiently for Superbase Professional to arrive. Wait no more, for it has arrived. And from what I've heard it is every bit as good as promised. I saw a version at a show last Autumn and I must admit it was pretty impressive.

Another word from Precision. If you obtain Superbase Professional and you have trouble transferring a database from either Superbase Personal or from another database then contact John Barrs at Precision and he will explain how it should be done. Please make sure though that you have your Superbase Registration Number to hand when you call.

Hopefully by the time this article appears, I shall be engrossed in the perils of Portia and the agonies of Agnus and learning all about Superbase Professional. But until then, read on Dear Reader...

Superbase

There are several ways of entering records into your Superbase database. The first and most obvious method is the ENTER command. Alternatively, you could SELECT ADD. This is useful if you wish to enter a record which is similar to an existing one. For instance, entering two members of the same family who live at the same address. First, you need to SELECT the correct record. Then, you can SELECT ADD and Superbase will allow you to alter any of the fields, including the KEY field.

Superbase carries out rudimentary checks on data entered into fields. A date must be entered into a DATE field. A number must be entered into a NUMERIC field. Something must be entered into a forced field otherwise Superbase will not store the record. However, you may often want to carry out further, more implicit checks on the data yourself. These checks must be carried out under program control. The program on the following page shows you how this can be achieved.

The members file definition is as follows:

```
File Definition  :  youthclub/members
 #       name       type     Format/ Calculation
  1   No            Key      Length    4
  2   Name          Text     Length   20
  3   Code          Text     Length    8
  4   Date          Date     Length    7
  5   Paid          Numeric  +##
```

The program is for demonstration purposes only. It allows you to enter simplified details of a club's membership. Lines 100-600 are the main control loop. In Superbase 128 you would probably use DO LOOPs instead of GOTOs. The subroutine at 1000 simply sets all the variables to null strings and the amount paid to 10. This is because most subscriptions are £10 and it will save a little typing. The subroutine in lines 2000-2060 displays the input screen. The variable (pd) is converted to a string. The rest is straightforward. The subroutine in lines 3000-3420 is the input routine itself. An explanation of this follows later. Lines 4000-4020 contain the storage routine. Lines 5000-5010 wait for you to press F1, F3 or F5 (codes 133, 134 or 135). Line 6000 displays whatever is in (me$) on the top line of the screen.

The program is simple to use but of course there are many more facilities which could be included. One which I often include is a simple check routine to see if a key already exists. But that can go into a later Corner.

```
  20 file "members"
  30 sp$="                    ":sp$=sp$+sp$+sp$+sp$:rem 80 spaces
 100 me$=" F1 - Enter, F3 - Enter similar, F5 - Exit":gosub 5000
 110 on ky goto 300,700
 200 gosub 1000:rem                initialise variables
 300 gosub 2000:gosub 3000:rem     display & input routines
 400 me$=" F1 - Store, F3 - Edit, F5 - Exit":gosub 5000
 410 on ky goto 300,100
 500 gosub 4000:rem                store record
 600 goto 100
 700 load "menu"

1000 no$="":na$="":cd$="":dt$="":pd=10:return
2000 display @0chr$(147):me$=" Enter Record":gosub 6000
2010 display @11,4"Membership Number:"no$
2020 display @11,6"             Name:"na$
2030 display @11,8"         Postcode:"cd$
2040 display @11,10"    Joining Date:"dt$
2050 display @11,12"Subscription Paid:"+str$(pd)
2060 return

3000 ask &4@30,4no$:no=val(no$):if no<4001 or no>4999 then 3000
3100 ask &20@30,6na$:if na$="*" then na$="":display @0@30,6" "
3200 ask &8@30,8c$:cd$=""
3210 for i=1 to len(c$):c=asc(mid$(c$,i,1))
3220 cd$=cd$+chr$(c-128*(c>64 and c<92)):next
3230 display @0@30,8cd$
3300 ask &7@30,10dt$
3310 dt$=right$("0"+dt$,7):date dt$,n:if n=0 then 3300
3320 [date]=dt$:convert [date],dt$:display @0@30,10dt$
3400 ask &2@30,12pd$
3410 pd=val(pd$):if pd<8 or pd>20 then 3400
3420 return

4000 me$=" Storing Record":gosub 6000
4010 [no]=no$:[name]=na$:[code]=co$:[date]=dt$:[paid]=pd
4020 store:return
5000 gosub 6000:wait ky$:ky=asc(ky$)-133:if ky<0 or ky>2 then 5000
5010 return
6000 display @0@+left$(me$+sp$,80):return
```

And now for the input routine. The ASK command is explained very well in the Superbase manuals. Note the (&). This limits the number of characters to whatever figure follows the (&). So the ASK command on line 3000 takes a four character input at column 30 on row 4. The rest of the line simply checks to see that a valid number between 4001 and 4999 has been entered. The idea is that all membership numbers are four digit and start with a 4.

Line 3100 allows you to input a text string. Occasionally you will want to leave a field blank. This is impossible with the ASK command as you must enter something. Since it is unlikely that anybody will have * as their name, we can use this to leave the field blank. If you had several text fields as in a name and address file then you would have several such lines, or possibly you could put the ASK command in a small subroutine.

Lines 3200-3230 is the postcode input routine. In this case you need to convert the postcode to uppercase characters. Postcodes have a maximum length of 8 characters (that is, a maximum of four characters for the first part, a space and three characters for the second). Line 3210 starts a FOR NEXT loop which puts the ASCII code of each character in turn into (c). Line 3220 is the main workhorse of this routine. If (c) is a lower case character then (c>64 AND c<92) will be true and thus take a value of -1. Otherwise it will be false and take a value of 0. Effectively any lower case character will be converted into an uppercase character. Line 3230 displays the converted postcode in the correct position. This little routine is far simpler than constantly having to press the CAPS/LOCK key (if you are lucky enough to have one!).

Lines 3300-3320 contain the date input routine. Line 3310 ensures that a valid date is entered. Line 3320 takes this date and puts it in the date field and then gets it back again, displaying the result in the correct screen position. Why? To convert the date to uppercase only. You could of course use the previous lower to upper case convert routine, but this routine is faster and is neater when you only want to convert the date.

And finally lines 3400-3410. This very simply asks for a text input which is converted into a number and range-checked to ensure that subscriptions fall between £8 and £20.

Let's return now to the main control loop in lines 100-600. Line 100 simply displays the menu message on the top line of the screen and waits for you to press F1, F3 or F5. If you press F1 then (ky) will be zero and you will drop through the ON GOTO routine at line 110 to line 200. If you press F3 then line 200, which initialises all the variables, will be skipped, enabling you to alter the most recently entered record. F5 takes you to line 700 which LOADs in the MENU program (see the last Super* Corner article). Line 300 calls two subroutines. The first displays the tailor designed input screen and the second calls the input routine discussed above. Line 400 displays another menu message. Again F1 drops you through to line 500 which calls the store routine. F3 sends you back to line 300, allowing you to edit whatever you have just entered. F5 sends you back to the first menu thus allowing you to abort the current record before storing.

I hope that this program demonstrates some of the powerful facilities available to Superbase users. It can be tailored to cope with any kind of input. It is worth noting though that such a program is valid only when there is a large amount of records to be entered and input checking is necessary or when uninstructed computer users are going to be entering the data. For small database applications it may not be worth writing a separate input program.

And now a simple report writer. Many people have over the years complained that the report generator in Superbase is not perfect. This is quite true, though it does do exactly what it is designed for. In short, it allows you to generate reports. The fact that some users want more sophisticated features is not the fault of Superbase. Time to get to grips with the programming environment! Space does not permit a full annotation of the program but I will develop it further in a future corner. The file definition appears on the next page.

```
  20 file "jobs"
  30 sort all on [client][date] to "job-sortlist"
  40 cl$=""
 100 select from "job-sortlist"
 110 display @0@15,2"JOB PRINT OUT"
 120 gosub 1000
 300 display @1[date]@10[job]@24&4,2[charge]
 310 s0=s0+[charge]
 400 select n:eol gosub 1100:goto 500
 410 if cl$<>[client] then gosub 1100:gosub 1000
 420 goto 300
 500 display @15,2"SUMMARY"@1,7"TOTAL CHARGES:"&4,2t0
 510 wait:menu

1000 cl$=[client]
1010 display @1,1"Charges Analysis for Client:"[client]
1020 display @1,3"Date"@10"Job"@26"Charge"@1,0:return
1100 display @1,0"Client Charge Total:"@24&4,2s0
1110 t0=t0+s0:s0=0:return
```

```
File Definition  :   accounts/jobs
  #     name         type          Format/ Calculation
  1  job             Key           Length    4
  2  client          Text          Length    3
  3  date            Date          Length    7
  4  charge          Numeric  +####.##
```

Several members have written asking about the BATCH command. Again this command is not as flexible as many would wish. Again the solution is to enter the programming mode of Superbase. The following program demonstrates how a short program can be used to simulate the BATCH command. It allows you to convert any field in a database file to capitals only. With very little alteration the program can convert two or more fields. But more importantly the program shows you how to step through the file one record at a time performing an operation on each record.

```
100 select f:rem                     select first record
200 a$=[text-field]:b$=""
210 select c:rem                     display record on screen
300 for i=1to len(a$)
310 ch$=mid$(a$,i,1):rem             seperate i'th character
320 if ch$>="a"and ch$<="z"then ch=asc(ch$):ch$=chr$(ch+128)
325 rem                              if lower then convert to uppercase
330 b$=b$+ch$
340 next
400 [text-field]=b$
410 select c:rem                     display record with conversion
420 wait:rem                         remove this line after testing
430 rem store:rem                    remove first rem when fully tested
500 select n:rem                     select next record
510 eof menu:rem                     if End Of File then exit to menu
520 goto 200
```

From the point of view of simulating the BATCH command only line 100 and lines 500-520 are relevant. These represent the control loop. All the calculations etc. inbetween these lines will be carried out for each record of the file. By replacing select f in line 100 with select from "anylist" and replacing eof with eol in line 510, you can carry out the operation on any key list created by a FIND.

Superscript

Last time we had a look at control commands and command strings. This time lets take a look at the layout command. There are two ways to enter layouts into your text. One method is via the Superscript menu (keystroke sequence F1 l... etc.), the other is to use Control-L followed by the layout option. The end result should be the same in both cases.

The layout options are explained from page R-69 onwards and from page M-9 onwards of the Superscript 128 manual. One feature which I use to improve the layout of documents is the combined indent/release option. This is explained in detail on page M-12. Even simple letters can be improved by indenting the paragraphs and numbering them. Getting to grips with the indent option is a matter of trial and error. Two points though. To switch off an indent you have to set the indent level to 0 with *in0 (the asterisk here represents the inverted asterisk seen on screen). If two levels of indent are required then you will have to include two *in0 (indent levels are cumulative: an indent of 10 followed by an indent of 20 results in a total indent of 30 columns.

One feature which does not appear to be documented in the Superscript 128 manual is the *tl option (text length). This works in exactly the same manner as *pl and sets the actual number of text lines per page. When I moved across to the 128 I naturally used as I had done with Superscript 8096 and Easyscript on the 64. It was only later that I discovered that Superscript 128 offers two more flexible options with *tm (top margin) and *bm (bottom margin). Pete MacLaurin from Precision enlightened me as to why the *tl option is available. There are a number of Easyscript etc commands which can be understood by Superscript in order to ensure upwards compatability of text files. These are not documented in the manual and in general you should replace the old Easyscript commands with the new Superscript commands. If you are using the former together with the latter then you may well run into formatting problems. The solution is usually to run through your file and remove or replace all the old Easyscript commands.

Another very useful facility is *fe (F1 l e f - printer feature option). Occasionally you may want to send a specific sequence of characters to your printer to obtain a feature which Superscript does not normally offer. You can, for instance, change the number of lines per inch or characters per inch very easily with this command. Superscript, though, does allow you to change these anyway. For instance, *li8 would give you eight lines per inch and *ci15 would give you fifteen characters per inch. The combination of these two commands with a Juki 6100 printer and a 15 pitch daisywheel almost doubles the number of words on a page. Handy if you are producing a newsletter and you want to maximise the available space.

There is only one way to find out about the layout commands in Superscript and that is by trial and error. If you come across an error message, then you must locate the offending option and correct it.

And now for some more command strings. One of the more frequently used functions is to send output to the printer. For this I have defined the p and P keys as follows. R/S (Run/Stop) p simply sends the current document to the printer eg /pp. R/S P is a little more complicated. My printer has a NLQ option (Near Letter Quality) and I have yet to find out whether Superscript 128 can select this option directly. Possibly by redefining the defaults file, but I haven't got round to that yet. Anyway, R/S P executes the following command string: /gs/ai^lfe27,40^m/pp/gs/el. This inserts a line at the start of the file and types out the layout command *fe27,40. It then prints the text and when all is done erases the first line from the file. So when I need a draft copy I simply type R/S p and when I need NLQ I type R/S P (shift p).

R/S f has been programmed to execute /df and R/S r to execute /dr. These two will file a document to disk and replace an existing document using the current file name (this appears on the second line of the screen in 80 column 128 mode). You could of course add ^m (^ represents the uparrow) which is Control-M to the end of these strings, but I personally prefer to have the option of aborting a disk command, just in case I don't want to overwrite the disk file.

I have two printers connected up to my C128 through a data transfer switch. A Juki 6100 and a dot matrix. At the beginning of my Superscript data disks I have saved two files, (defaults) with the printer definition for the dot matrix printer and (juki) with the Juki definition. In the Juki definition I have programmed the + key to execute /pipdefaults^m and in the defaults definition I have programmed the + key to execute /pipjuki^m. Very useful when changing printers. The only point to remember is that you must be in an empty text area for this command string to work.

John Marchant of Bedford has another use for the + key. R/S + gives /gd and R/S - gives /gu. In other words, go down a page and go up a page respectively. Very useful, though one can always add a bit. It is possible to program R/S SHIFT + and R/S SHIFT - to represent go to end and go to start respectively (/ge and /gs). Of course you may prefer to use R/S e for go to end. This is a matter of taste. One problem with /ge is that it always leaves the cursor flashing on top of the last character. By adding two ^u to give /ge^u^u (^u is Control-U which moves the cursor one position to the right) you can position the cursor ready to type the next word.

Super Directory

A member wrote recently with another interesting problem. How do I produce a directory of all my disks which I can then sort and edit using Superscript?

This is something I havn't looked into and at first I was stumped. I remembered that somebody had written an article last year about this problem, so I searched through the back numbers and there on page 130 of the Mar/Apr 1987 magazine, Volume 9 No 2, I found it. An article on how to create an Easyscript Disk Directory.

Only one problem! Superscript, unlike Easyscript, does not offer a facility to load the directory into memory. A quick phone call around solved the problem for me. In fact there are two simple ways around it. The first and easiest is to use a facility in Superbase. The following commands issued either on the command line or in PROG mode will create a sequential file of the disk directory.

```
open "dirfile":directory:close
```

This can then be loaded into Superscript as a normal text file and then be edited in a manner explained in the article mentioned above. However, not everyone will have Superbase as well as Superscript and another solution is required. Again, it is relatively easy. In normal Commodore BASIC direct mode type the following commands.

```
load "$",8
open 1,8,1,"dirfile,s,r"
cmd 1:list
close
```

This loads the directory into memory as a program and then lists it to disk as if it were a printer. You can then edit it by loading the resulting sequential file into Superscript.

Using the macro facilities of Superscript you can then strip the directory file of all redundant data and combine several directories together. If you mark a unique disk identifier next to each file you will be able to sort the information alphabetically, and have a complete sorted list of all the files on your disks.

The easiest way to sort your data? I am sure there are routines around which could do the job. How about importing all the file names into a Superbase database with the file name as the key? Make sure that you allow duplicate keys otherwise the import may fail. Anyone want to design suitable macros and a database to do this job? Fortune and glory are the rewards!

MIKE'S MEANDERINGS

by Mike Todd

You may have noticed that the current Newsletter is volume 10, which implies 10 years of ICPUG. In fact, the very first Newsletter appeared in November 1978 on behalf of what was then IPUG, the Independent PET Users Group; the first three issues were simply stencil-duplicated loose pages and May '79 saw the first issue in the familiar printed format. The cost of membership was £2.50, which bought a full 107 pages of Newsletter in this first year. (Even in those days, complaints were received that the Newsletter was oriented too much in favour of the new products - nothing changes, does it?)

Volume 2 started in November 1979 and ran through until September 1980 when we had a short gap which brought subscriptions and Newsletter volumes in line with the calendar year. To cope with the cost of an increasingly bulky Newsletter, subscriptions were soon raised to £6.50, and then again to £7.50 for 1982. This was the year that, after a referendum vote (273 in favour, 96 against), IPUG became ICPUG thus representing all Commodore machines which by this time included the VIC-20.

At the AGM in October 1983, an increase in subscriptions to £12 was considered. After a long and heated argument a subscription of £10 was adopted - and it has remained so ever since - yet ICPUG has continued to support an increasing membership and a larger and larger Newsletter, and still end each financial year with its head above water.

Of course, there would never have been an IPUG if it hadn't been for the events of 1977 when Commodore announced their production of the PET - the Personal Electronic Transactor.

In fact, March 1988 marks the 10th anniversary of the very first CBM PETs being delivered in the UK - these were the original 2001-8, with blue screen, built-in cassette machine, tiny (calculator style) keyboard and only 8k of RAM.

I placed an order for one of these in February 1978, paid my £695 (far more than the cost of an Amiga system, taking inflation into account), and my PET was delivered on March 13th at 13 minutes past 1 (that's 13:13 on the 24 hour clock - honest, I have a witness). Perhaps it wouldn't surprise you to learn that the PET that arrived was serial number 1000013! Pushing this a bit further, I was living in London W13 and house number 52 (4x13).

With all these 13's, I wasn't too surprised to find a host of problems with this early machine - power rectifiers failed, connectors overheated and burnt out, and the cassette mounting bracket scraped the power cable and damaged it. Despite this, it was an innovative machine and the start of an era. Commodore (and computers generally) has come a very long way since then.

PROGRAM vs PROGRAMME

In those early days of computing, there was much controversy about the spelling of the word PROGRAM. Most people wanted to spell it PROGRAMME, but many in the computer world wanted PROGRAM.

After a couple of years, it became accepted by all but the purists that PROGRAM would apply to computer programs, while PROGRAMME would refer to any other sort, such as a concert programme. Even now, some of those purists get on their high horse and insist on PROGRAMME as the only acceptable spelling, deriding PROGRAM as a vulgar Americanisation.

Well, I've done a little research and discovered an interesting fact. The definitive arbiter on questions of English language, the Oxford English Dictionary, accepts PROGRAM in the computer sense. However, it also points out that PROGRAM is the original English spelling and is more correct in its conforming to the usual English representation of the Greek GRAMMA (as in anagram, diagram and so on). PROGRAMME itself is not English, but French and has been imported from across the Channel.

While in a pedantic mood, and going well beyond the realm of computing, I must express my own dislike of the corruption of the word ORIENT to ORIENTATE. In fact ORIENT is correct, giving ORIENTING and DISORIENT.

ORIENT also gives rise to ORIENTATION, from which some have worked backwards to the word ORIENTATE. My pet hate is to hear the word DISORIENTATED used instead of DISORIENTED. Okay, enough of my soap-box; next time a treatise on the origins of the English language. well, maybe not!

Commodore spare parts

On a more technical note, those of you who have a need for replacement components for C64's, Plus4's, C128's and Amigas should read this issue's Amiga Watch. You'll find details of a very useful company in Birmingham.

TRANSACTOR

You may recall my eulogising on the merits of the newly introduced Transactor for the Amiga in a recent Newsletter. At the time, I had no involvement with the magazine - however, since I wrote that piece, I have become more and more involved with the UK edition. It's still a terrific magazine, but I can no longer say so from an unbiased position!

HOBBY COMPUTING ON THE C128

by Peter Hauke

Anyone who uses a C128 will know that you can either have 40 column output (as with the 64 to a television) or 80 column output to a monitor. With the majority of monitors this involves switching between the two formats. Many people will also know that you can have both 40 and 80 column displays running simultaneously by connecting for instance a television to the aerial output and an 80 column monitor to the video output.

At first glance this little piece of information does not seem of great interest. But there are uses. By means of the GRAPHICS command in BASIC 7.0 one can easily switch between 40 and 80 columns and indeed have two displays up and running at the same time. For program developement, you might use the 40 column screen as the editing screen and the 80 column screen for displaying output. Or you could use the two screens to hold more program listing than either screen on its own.

Of course these uses are not much to write home about. This feature comes into its own when you want to use graphics. Connect up both a monitor and a television. Write your graphics program on the 80 column screen and then run it. Watch the display appear on the 40 column screen. If you need to change the program, edit it in 80 column mode again and then rerun the program. The 40 column screen will always display your pictures.

A local youth club organises a quiz competition once a month. The club has a nine by nine foot video projector available for its use. We can connect the television output of the C128 to the projector and, hey presto, everybody can easily see the screen. The C128 has been programmed to display the score, a timer and a few other facilities on the screen. Meanwhile, the 80 column monitor displays a list of menus and instructions so that anybody can operate the computer with ease!

One of the electronic whizzkids at our club has designed a buzzer system with LED's (Light Emitting Diodes) all over the place to indicate who has pressed first. Eventually we hope to interface this with the computer so we could have the person's name flash on the screen as well, but that is another project.

To answer Brian Grainger's question posed in the last ICPUG magazine, hobby computing isn't dying, at least not in this part of the world!

BOOK REVIEW - FORTH: THE NEXT STEP

reviewed by Richard G Hunt

Earlier this year I was corresponding with Ron Geere over some difficulty I was having with Forth (members may not know that Ron is the senior ICPUG Forth guru having contributed a regular column once. It is always with trepidation that I write Forth, knowing I shall be corrected). In his reply Ron just happened to mention his book and the solutions it contained. I decided to obtain it.

Now for reasons best known to the publishers a single copy of the book is not easy to obtain through ordinary bookshops. One told me that my order might have to wait a little until a quantity order had been made up. Reckoning that the demand for Forth books isn't like that for Archer or Collins, I cancelled the order and phoned Dillons (Gower Street, London) who had it in stock.

The book is slim, some 80 pages, but indeed full of Forth, some of it totally beyond me. I'll come back to that later. I don't believe the title is meant to be a pun, but it could well be. NEXT is the address of the Forth inner interpreter, and everything, but everything, revolves around it, step after step.

There are 10 chapters and they do not comprise in any sense a beginner's manual. In Ron's words the book is 'oriented towards the sort of problems people meet when they have passed the beginners phase'. The first two chapters contain information and definitions that will be useful for any Forth toolbox. There is a chapter on double numbers, which extends the paltry base provided by Forth standards. The chapter on mathematical functions is where it gets too complicated for me. I ceased maths at 'O' level several decades ago and I boggle at the expressions used here. Looks good for those who know a bit though. Ron, bless him, comes to Earth with a chapter which includes some calendar routines, including mention of Chr. Zeller who has provided some interesting material in the S.E. group magazine lately. The final chapters provide for very large numbers (more than 10 digits) and some odds and ends.

There is a lot of good Forth code to look at. The presentation is clear and well set out. Forth is task oriented and so it is to be expected that the code provides solutions to given problems. Weak math notwithstanding, there is much to be gleaned. Personally, I can use it as reference. I doubt that I will ever be faced with the application problems illustrated in it. For this reason the book is likely to be of restricted appeal. It is however an interesting addition to the Forth library. For ICPUG Forth fanatics, it is of course a must.

Published by Addison-Wesley at £8.95 ISBNO-201-18050-2

REACH FOR THE STARS
at
The 11th Official
commodore
computer show
Returning to London with a celebrity supporting cast
Champagne Suite and Exhibition Centre, Novotel, Hammersmith, London W6

Friday June 3 10am-6pm
Saturday June 4 10am-6pm
Sunday June 5 10am-4pm

★ MEET TESSA SANDERSON ★
Olympic Gold Medallist
Chat to the big names from Chelsea FC
★ Say Hello to Adam Faith ★
★ Mystery guest appearances ★

Music
Discover why Commodore computers are hitting the high notes around the world

Business
Visit the Business World sector – the show within a show. See how your company can benefit from the power and versatility of Commodore machines

Programming
Seize the opportunity to talk to the famous software authors who are keeping Commodore at the head of the pack

Games
Hurry along to the fabulous Commodore games arcade and play all the latest hit titles – FREE

The fantastic AMIGA
Seeing is believing! This is YOUR chance to try it out for yourself!

Cut the queues and save £1 per head – with this advance ticket order

Advance ticket order
commodore computer show
Novotel
Hammersmith, London W6
June 3-5 1988

Please supply:
Adult tickets at £2 (save £1)............ £ ______
Under 16s tickets at £1 (save £1)......... £ ______
Total £ ______
Cheque enclosed made payable to: Database Exhibitions
Please debit my Access/Visa card no:
Access/Visa
|_|_|_|_| |_|_|_|_| |_|_|_|_| |_|_|_|_|

Post to: *Commodore Show Tickets, Europa House, Adlington Park, Adlington, Macclesfield SK10 4NP.*
Name ....
Address ....
....
Signed ....

Admission at door: £3 (adults), £2 (under 16s)
Advance ticket orders must be received by Wednesday May 25.

PHONE ORDERS: Ring Show Hotline: 0625 879920
PRESTEL ORDERS: KEY *89, THEN 614568383
MICROLINK/TELECOM GOLD ORDERS: 72:MAG001
Please quote credit card number and full address + A382

BRIAN'S BLUNDERINGS

by Brian Fowler

SUPERBASE AND HARD DISK BACKUPS ON THE AMIGA

The problem was a directory on the hard disk drive containing some 3Mb worth of files. Now, like everyone else, I regularly backup all my data - but unfortunately the Supra Hard Drive doesn't come with a backup utility.

It is possible to use AmigaDOS, but bulk copying of files can easily lead to "disk full" errors. I tried CLImate and the otherwise excellent DUX5, but neither are able to cope with large numbers of files (there are over 200 files in the directory I mention above).

I considered the possibility of writing my own backup utility in Amigabasic, but fortunately I hit on a much easier solution. I have been beta-testing SUPERBASE PROFESSIONAL for Precision Software and being programmable, the software doesn't restrict you to database applications alone.

So why not write a backup utility in SB's own language ?

This program follows, and reading through it a couple of times should enable you to tailor it to your own requirements. In particular, you may care to add an option to format floppies before starting the backup, or ask the user for a wildcard pattern and only back up the matches. I have used this utility myself for some time now, and it has behaved itself. But, if you do type it in and it does disappoint you, remember how much you paid for it!

The program allows you to choose which directory to back up, and then prompts for floppies as it needs them. A couple of lines on the screen inform you of space remaining on the backup disk and the name and size of the file currently being copied. Input to the program is through Requesters.

Note that any sub-directories within the backed up directory are skipped; it would be possible to follow the sub-directories and back up all files, but as I didn't need this facility I didn't include it.

The program also makes use of a temporary file on dh1:, but you can change this to RAM: if you wish.

```
REM BackUp by Brian Fowler
REM
REM Have Formatted Floppies Ready
REM

SET PAGING OFF
start:
 CLS
 ? @30,1"Back Up"
 OPEN "dh1:tmp" FOR OUTPUT
 ? DIRECTORY
 CLOSE OUTPUT
 OPEN "dh1:tmp" FOR INPUT
 INPUT LINE a$
 CLOSE INPUT
 ? :? " Current Directory is : " MID$ (a$,18,80)
 a$ = ""
 REQUEST "Please Select Directory to Back Up"," - Press ENTER to Back
Up Current Dir",18,a%,a$
 IF a% THEN DIRECTORY a$:a$ = "cd " + a$:CALL a$:GOTO start
 OPEN "dh1:tmp" FOR INPUT
 WHILE NOT EOF ("*")
 INPUT LINE a$
 ? a$
 WEND
 CLOSE INPUT
 REQUEST "Do You Wish To Back Up","This Directory ?",1,a%
 CLS
 ? @30,1"Back Up"
 IF a% = 0 THEN END
 ? @27,4"Please Wait":CALL "list > dh1:cat"
 CLS
 OPEN "dh1:cat" FOR INPUT
 WHILE NOT EOF ("*")
 INPUT LINE a$
 c% = c% + 1
 HOME
 ? c%" "a$
 WEND
 CLOSE INPUT
```

```
DIM f$(c% - 2)
DIM f%(c% - 2)
OPEN "dh1:cat" FOR INPUT
CLS :? "Please wait"
FOR i% = 1 TO c% - 2
INPUT LINE a$
f$(i%) = LEFT$ (a$,26)
f1$ = MID$ (a$,27,6)
f%(i%) = VAL (f1$)
NEXT
CLOSE INPUT
CLS
REQUEST "Please insert BackUp disk in df0: ","",0
NUMBASE "9999999999"
FOR i% = 1 TO c% - 2
IF f%(i%) = 0 THEN NEXT
d% = DISKSPACE ("DF0:")
HOME
? FG 4d% FG 2" bytes free on DF0   ":?
NUMBASE "9999"
? "    Copying file #" FG 4i%:?
NUMBASE "9999999999"
? "    Filename " FG 4f$(i%):?
? "    Filesize " FG 4f%(i%):?

IF d% < f%(i%) * 1.5 THEN
REQUEST "Please change disks","",0
END IF
c$ = "copy " + f$(i%)
c$ = c$ + " to df0:"
CALL c$
NEXT
?
?
? "    *****  Back Up Complete *****"
END
```

⁂

USING AMIGA CODES FROM BASIC

by Anthony Sidaway

Mike Todd's short article "Amiga Codes" in the July/August '87 issue gives a few of the Amiga's "console device" control sequences: special commands to the console driver, mostly starting with an ASCII "escape", enabling you to set foreground and background colours, writing attributes, and other useful tricks. The only problem is they can't normally be used with the BASIC PRINT statement.

For complete information about the console device, which amounts to a powerful ANSI terminal emulator inside the Amiga's kernel ROM, members are referred to the Amiga ROM Kernel Manual: Libraries and Devices (Addison Wesley, 1986. ISBN 0-201-11078-4). This short article shows a way to use the console device from BASIC. No arcane library calls are needed. It can be done in fairly standard Microsoft (Amiga) BASIC by observing some simple rules.

Life in the RAW

A "switchable RAW console device" can be opened from a BASIC program using the OPEN statement as shown. You can select two flavours of console device, "CON:" and "RAW:". I understand they are more or less the same, except that "CON:" lacks the capability for "raw" event reporting.

If you've typed in the program correctly, you will see a large window open. This resembles the CLI window, having the same limited gadgets. You can treat it like the CLI window. The name "Console Window" seen on the title bar is taken from the name part of the device description in the OPEN statement.

Some more initialisation is given, to make sure that the buffer is "empty" (actually, the best we can do is to fill it with ASCII "NUL" characters).

The bottom line

The process of writing anything to the console is fairly simple. Just use PRINT statements in the usual way. Instead of writing directly to the screen, BASIC will send your output to the device buffer, so don't exceed 'buflen%' characters total. It is possible to put characters directly into the buffer using LSET, but PRINT and PRINT USING are much more versatile.

When you wish the contents of the device buffer (ie: the effects of your PRINT statements) to appear on the console screen, PUT them to the screen. After the PUT, an LSET should be used as shown to clear the device buffer, otherwise console output will soon degenerate into garbage.

Now it's your turn

Input from the console must be done on a character-by-character basis. No matter what your 'buflen%', GET only returns one character from the keyboard. This is just as well, as GET doesn't echo typed characters either.

Keeping control

The input loop as shown will not correctly echo Amiga control sequences typed at the keyboard. Although GET only inputs one character, PUT outputs the whole buffer. Normally, the ASCII "NUL"s in the remainder of the buffer have no visible effect, but here they will cancel any control sequences output.

The simple way round this is to define buflen% = 1, but then you are limited to outputting one character at a time, too. If your program does a lot of console output, a better way is to alter the input loop to trap the CSI, and input without echoing until the end of the command sequence. When the end is found, your program should clear the device buffer, PRINT the control sequence in one go (not forgetting the semicolon in the PRINT statement), the PUT #chan%. The control sequence will be put into effect in the console window. Normal "read-echo" mode can then be resumed. This has been tried for ANSI sequences and works quite effectively.

What else can it do?

Elegance it certainly lacks. In fact, it would hardly be worth doing at all were it not for the power of the "console RAW: device". The real power is in the console's ability to interpret AND GENERATE control sequences for almost every conceivable eventuality. You can drive the console device, with appropriate keymapping, more or less like a VT100 terminal.

You can also receive reports from the console device. You can ask it where the cursor is, and what the current window width and height are. You can ask it to send you "raw" events - such as user keypresses and releases as they happen, menu selections, mouse clicks, even the insertion or removal of a disk. This makes the console potentially very useful.

I shall try to explore some of the possibilities of the console device from BASIC, including easier ways to use it, event handling, ways to change the keymap, and finding ways to combine it with BASIC graphics statements. I hope to present further findings in a later Newsletter.

```
REM Simple demo of console write/read with echo
REM Useful functions
REM STR$ without the leading space which mucks up control sequences
    DEF FNs$(x)=RIGHT$(STR$(x),LEN(STR$(x))-1)

REM ASCII decimal 155 is the ANSI Control Sequence Introducer (CSI)
REM Keyboard issuable alternative is sequence decimal 27 91 (ESC [)
REM Position text cursor at row, col (top left is 1,1)
    DEF FNp$(row,col)=CHR$(155)+FNs$(row)+";"+FNs$(col)+"H"
REM Select text style s, foreground and background colours f,b
    DEF FNg$(s,f,b)=CHR$(155)+FNs$(s)+";"+FNs$(30+f)+";"+FNs$(40+b)+"m"

REM To open a RAW: console with 600x200 window at (10,10).
    chan%=10              ' Channel number for console device
    buflen% = 128         ' User-definable console buffer length
    OPEN "RAW:10/10/600/200/Console Window" AS #chan% LEN = buflen%
    FIELD #chan%, buflen% AS buffer$   ' For PUT
    FIELD #chan%, 1 AS cbuffer$          For GET
    nulbuf$ = STRING$ ( buflen% , CHR$ ( 0 )) ' buflen% ASCII "NUL"s
    LSET buffer$=nulbuf$  ' NOT just buffer$=nulbuf$ (See BASIC manual)

REM To print some fancy text at column 5 of row 5.
    PRINT #chan%,FNp$(5,15);FNg$(3,4,1);"Hello Amiga Users"
    PUT #chan%                ' Output the device buffer
    LSET buffer$ = nulbuf$    ' Empty device buffer for the next PRINT

REM To input a line of text with echo
    r$ = CHR$ ( 13 )            ASCII RETURN key code
    l$ = "" : c$ = ""
    WHILE c$ <> r$            ' Until user hits RETURN or CONTROL-M
      l$ = l$ + c$            ' Append last character to input line
      GET #chan%              ' ALWAYS gets only one character
      c$ = cbuffer$           ' Transfer it from the buffer.
      PUT #chan%              ' Remove this line if you don't want echo
    WEND
    LSET buffer$ = nulbuf$    ' Reset buffer in case you need to PRINT

REM To close the console and verify the input line.
    CLOSE #chan%              ' Close removes console window from screen
    PRINT l$                  ' Print the result in the OUTPUT window.
```

AMIGA PROGRAMMING - 1. A WINDOW ON THE WORLD

by Tim Arnot

I suppose you have Brian Grainger to thank (or blame) for this, since I just could not resist the challenge he threw up (sic) in the last Newsletter. When I first got my Amiga, the thought of programming it - learning a new operating system and a new language, namely C, was a little worrisome. However, I intend through this column to show you that it is not as bad as I first thought.

Let me start off by recommending some background material. The Addison Wesley official reference manuals (Intuition, Rom Kernel (2 volumes - 'Libraries and devices' and 'exec')) are pretty well essential for serious work, as it the AmigaDOS manual from Bantam. However this little lot will set you back nearly £100. The Author of the RKM and Hardware reference manuals, Rob Peck has produced a nice readable little book 'Programmers Guide to the Amiga' (Sybex, £24.95). I certainly recommend this book, and it is available from me at a special members discount (Warning: I am moving house soon, so please check with the discounts officer where to send your money!)

Traditionally, the first program you must write prints the message 'Hello World' to the screen. Well, we're not going to be any different, although as a variation on the theme we will open a window and print the message inside it. By the way, the compiler I'm using is Lattice 3.10, so if yours is something different, you may have to make alterations.

```
#include <exec/types.h>
#include <intuition/intuition.h>
#include <graphics/gfxbase.h>
```

For most programs we will need to include a variety of 'header' files. These are C source files that are provided on the compiler disk. They define the various structures, constants and macros that will be used.

The Amiga's operating system is organised as a series of libraries. To use the operating system, you must first open the library. Once you have finished, you must close the library. The most often used libraries - exec, intuition, graphics etc are kept as part of the Kickstart Rom, whereas some of the lesser used libraries are kept in the libs directory of the workbench disk. As an aside, this makes it easy to alter the operating system by simply replacing the library. Charlie Heath's AmigaDOS Replacement Project (ARP), on fish disk 123 is a case in point.

Two of the libraries, Exec and Dos are opened for us automagically when we start our program, but toopen the others, we must first declare some pointers to the start or base address of the library.

```
struct IntuitionBase *IntuitionBase;
struct GfxBase        *GfxBase;
```

For the library pointers it is important to use the correct variable name. Note the positions of the capitals.

As we are going to open a window, we need to have a pointer to a Window structure. Note that although I've called the window win, you can really call it anything you like. The size, position and various attributes of the windo we want to open are pre-initialised into a NewWindow structure. The address of this structure will be used in an OpenWindow() call that will hopefully return us the pointer to our successfully opened window.

```
struct Window *win;
struct NewWindow nw = [
    0,0,                  /* LeftEdge, TopEdge */
    640,200,              /* Width, Height */
    0,1,                  /* DetailPen, BlockPen */
    NULL,                 /* IDCMP Flags */
    ACTIVATE!WINDOWSIZING!WINDOWDRAG!WINDOWDEPTH, /* Flags */
    NULL,                 /* Gadget pointer */
    NULL,                 /* CheckMark pointer */
    Window on the World, /* Title */
    NULL,                 /* Screen pointer */
    NULL,                 /* BitMap pointer */
    40,60,                /* MinWidth, MinHeight */
    640,200,              /* MaxWidth, MaxHeight */
    WBENCHSCREEN          /* screen Type */
];
```

Briefly, the pen values indicate the colours we will use to draw the window title and borders in. IDCMP flags indicate events that we want to know about.

Since we don't yet know how to deal with these events, whe don't want to know about them. Flags indicate certain things about the window - it is active when opened, it has sizing and depth gadgets, and a drag bar. We don't have any user gadgets or custom checkmarks (the checkmark is the little tick you can place beside selected menu items). Lastly, we want the window to appear on the workbench screen.

Once we've declared a void function that we'll use later on, we can actually start the program! (No prizes for guessing what the function does!)

```
    void vacate_the_premises();

    main()
    [
        LONG i;
        IntuitionBase=(struct IntuitionBase *)
            OpenLibrary(intuition.library,33);
         if(IntuitionBase==NULL) vacate_the_premises();
```

The variable i we'll be using shortly, but you will see that we've tried to open the Intuition library. Take care not to include capitals in the spelling of intuition.library. The number 33 refers to the library version we want to open. In this case, we're only interested in version 1.2 of the operating system. Other possible values are as follows:

```
0  = Don't Care
_9 = V1.1 onwards
31 = V1.1
33 = V1.2
```

We must check to see if the library was opened successfully. If so, IntuitionBase will contain the address of the start of the library. If the address is 0 (ie NULL), the call has failed and there is really no point in going on. You can try, if you like, using library functions after the call failed, but I think you can guess the result.

We will now repeat the process for the graphics library.

```
    GfxBase=(struct Gfxbase *) OpenLibrary(graphics.library,33);
    if (GfxBase==NULL) vacate_the_premises();
```

Back in the NewScreen structure, you may have noticed that the window height and max height were set at only 200 lines. That's fine for inferior American Amigas (Ack Pth!), but we Brits, being naturally superior have 256 line Amigas. Ok, we'll do something here that American software developers almost never do; we'll check the screen size and adjust ourselves accordingly.

```
    nw.height    = GfxBase->NormalDisplayRows;
    nw.MaxHeight = GfxBase->NormalDisplayRows;
```

It's as simple as that! Incidentally this stuff only works in 1.2, so watch your library version numbers. You can make similar horizontal adjustments for overscan in both horzontal and vertical modes (for people who use ScnSizer or MoreRows). The GfxBase structure can, of course, be examined for details - it's in the GfxBase.h header file.

Ok, let's try to open the window.

```
    if ((win = (struct Window *) OpenWindow (&nw)) == NULL)
        vacate_the_premises();
```

Notice the similarity between this and the OpenLibrary() calls. Again we check that the call was successfull and take appropriate action.

Now for the point of the exercise... the message 'Hello World'

```
    Move (win->RastPort,20,30);
    Text (win->RastPort,Hello World,11);
```

I guess it's pretty obvious what is going on. We move the cursor in the RastPort associated with our window, and write the message. 11 is the length of the text string. RastPorts are important, and i will spend some time discussing them in another article.

Now that we've accomplished the objective, we'll hang around long enough to see the results, and then shut up shop in a nice orderly fashion.

```
        for (i=0;i<1000000;i++)
            ;
        vacate_the_premises();
    ]
```

Now for our cleanup routine. If we just exit()ed when we'd finished the program, all our libraries, memory, windows, screens and whatever would still be allocated. If you've ever been stuck with a dead window on the screen, you'll know how annoying it is. remember the Amiga is a multitasking computer, and you will not necessarily know what else is running. So if you use it, free it up afterwards. (A good check is to look at the memory free display on the workbench screen title bar. If it is less after your program has run, you know there is something you have not freed.)

Our routine here checks to see what we've opened,and then closes it.

```
void vacate_the_premises()
]
   if (win) CloseWindow(win);
   if (GfxBase) CloseLibrary(GfxBase);
   if (IntuitionBase) CloseLibrary(IntuitionBase);
   exit (TRUE);
]
```

And so, the completed program. In future, I will not present whole programs, but merely code segments. This will allow more space to go into depth over the routines, the principles behind them, and other possible options that could be taken. There are lots of examples of good Amiga programming on the Fred Fish disks. You could do worse than to study the included source to them.

One good book I forgot to mention earlier is Ariadne's 'Kickstart Guide to the Amiga' It approaches the Amiga from a C64/128 upgrade path, and has a nice introductory chapter on starting in C. It's by Dave Parkinson and Mike Bolley.

***

EXHIBITIONS

by Janet Bickerstaff

OFFICIAL COMMODORE SHOW - JUNE 1988

The Commodore Show is to be held at the Novotel, Hammersmith, London, from Friday 3rd June to Sunday 5th June, with setup on Thursday 2nd June. Stand volunteers please note and get in touch with me with offers of help.

Take advantage of the special discount price for ICPUG members and obtain your tickets by using the Advance Ticket Order Form included with this Newsletter. As a member you can obtain one ticket at half price, and at the same time order tickets for your family and friends at a saving of £1 per ticket. Tickets at the door will be £3. Send the form direct to Database Exhibitions and don't forget to give your current membership number (six digits).

Unfortunately we have not been able to arrange a free Get-together for members on the Saturday evening, but it may be possible to arrange one at the Christmas Show which Commodore are planning for November.

At the time of going to press we do not know our Stand number, but I am sure that you will be able to find us. Please do come and say hallo. Once again there will be a free Raffle for members of the Club coming to the Stand.

As in recent years, ICPUG have invited the great Jim Butterfield to attend the Show at our expense. Jim is known world-wide for his knowledge and experience with Commodore machines and he will be on our Stand and at our Seminars. He will be coming over from Toronto at the beginning of June and will be addressing Club meetings at Coventry on 1st June, Slough on 2nd June, Solent on 7th June and South East at Biggin Hill on 9th June. All members are welcome to attend these meetings. Please get in touch with the region concerned for details or contact Brian Wise, the Regional Organiser.

PERSONAL COMPUTER SHOW - SEPTEMBER 1988

To be held at Earls Court from the 14th to 18th September, with set up on Tuesday, 13th September.

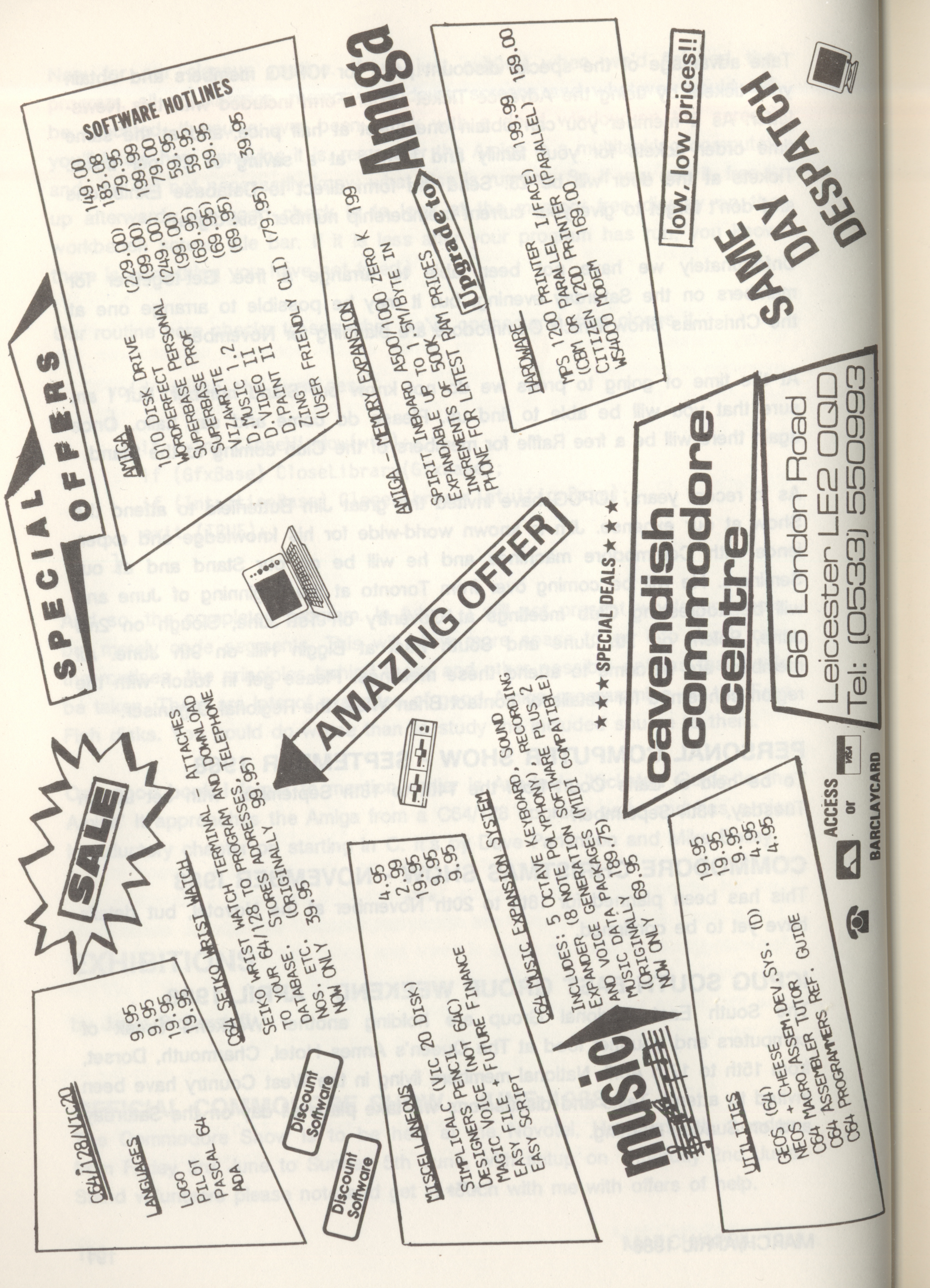
COMMODORE CHRISTMAS SHOW - NOVEMBER I988

This has been planned for 18th to 20th November at the Novotel, but details have yet to be confirmed.

ICPUG SOUTH EAST GROUP WEEKEND - APRIL 1988

The South East Regional Group are holding another Weekend Break of computers and gourmet food at The Queen's Armes Hotel, Charmouth, Dorset, from 15th to 17th April. National members living in the West Country have been invited to attend. Talks and discussions will take place all day on the Saturday and on Sunday morning.

***



SPECIAL OFFERS

SOFTWARE HOTLINES

AMIGA
1010 DISK DRIVE (229.00) 149.00
WORDPERFECT (99.00) 183.08
SUPERBASE PERSONAL (249.00) 79.95
SUPERBASE PROF (99.00) 199.99
VIZAWRITE (69.95) 79.00
D.MUSIC 1.2 (69.95) 59.95
D.VIDEO II (69.95) 59.95
D.PAINT II 59.95
ZING
(USER FRIENDLY CLI) (79.95) 39.95

SALE

C64/128/VIC20

LANGUAGES
LOGO 9.95
PILOT 9.95
PASCAL 64 19.95
ADA 19.95

C64 SEIKO WRIST WATCH
SEIKO WRIST WATCH TERMINAL ATTACHES TO YOUR 64/128 TO PROGRAM AND DOWNLOAD DATABASE. STORES ADDRESSES, TELEPHONE NOS. ETC. (ORIGINALLY 99.95) NOW ONLY 39.95

Discount Software

Discount Software

AMAZING OFFER

AMIGA – MEMORY EXPANSION
SPIRIT INBOARD A500/1000 ZERO K 199
EXPANDABLE UP TO 1.5M/BYTE IN INCREMENTS OF 500K
PHONE FOR LATEST RAM PRICES

Upgrade to Amiga

MISCELLANEOUS
SIMPLICALC (VIC 20 DISK) 4.95
DESIGNERS PENCIL 2.99
MAGIC VOICE (NOT 64C) 19.95
EASY FILE + FUTURE FINANCE 9.95
EASY SCRIPT 9.95

C64 MUSIC EXPANSION SYSTEM
INCLUDES: 5 OCTAVE KEYBOARD, SOUND EXPANDER (8 NOTE POLYPHONY), RECORDING AND VOICE GENERATION SOFTWARE PLUS 2 MUSIC DATA PACKAGES (MIDI COMPATIBLE) (ORIGINALLY 189.75) NOW ONLY 69.95

music

HARDWARE
MPS 1200 PRINTER (CBM OR PARALLEL I/FACE) 199.99
CITIZEN 120D PRINTER (PARALLEL) 159.00
WS4000 MODEM 169.00

★★★ SPECIAL DEALS ★★★

cavendish commodore centre

low, low prices!!

UTILITIES
GEOS (64) 19.95
NEOS + CHEESE 19.95
C64 MACRO.ASSEM.DEV.SYS. (D) 9.95
C64 ASSEMBLER TUTOR 4.95
C64 PROGRAMMERS REF. GUIDE 4.95

SAME DAY DESPATCH

66 London Road
Leicester LE2 0QD
Tel: (0533) 550993

☎ ACCESS or VISA
BARCLAYCARD

GRAINGER'S GAZETTE

by Brian Grainger

Here is the start of a new occasional feature, with the aim of presenting some of the news, views and humour culled from a variety of sources, mostly trade papers. It will feature computing in general, not just Commodore.

Virus

Lets start with that well worn of topics - the virus. While the Amiga virus caught the imagination of the popular press and TV a few others have been reported in the trade press. The most famous of these is the "Christmas tree" graphic that appeared around Christmas time. It started in a European academic network, Earn, and spread to the international Bitnet network. Although programmers were called in to disinfect the system it managed to spread to IBM's private network VNet, bringing it to a standstill. When viruses invade networks real disaster can set in, so much so that they seem to have supplanted hacking as the latest form of sabotage.

In February an advert for some software on Compuserve was in fact a peace message virus designed to lay dormant until March.

All these reports may sound fun but viruses are being taken very seriously. Commercial products are beginning to appear which are said to protect systems against viral infection and the US Defence Department are reported to be looking seriously at the problem of a virus attacking their networks.

IBM OS/2

In the IBM world the new operating system OS/2 has finally appeared. This is the standard version but at present is really only useful to software developers. Things don't get exciting until the Presentation Manager windowing system is added, probably around August.

The windowing system looks very interesting. Microsoft have had a product called Windows for some time. However, the windows form a tiled pattern and cannot be overlapped. The latest version of Windows and the future Presentation Manager will allow overlapping windows similar to those on the Amiga. There is one big plus though. Each item on a menu has one letter highlighted, usually obvious, for example 'F' in file and 'X' in Exit. Now, instead of using the mouse, one can also select from the menus by pressing these keys with the ALT key, so ALT-F followed by ALT-X will select File eXit. I think this enhancement is a superb idea, as it overcomes the problems of using a windowing system on a keyboard intensive task such as wordprocessing or database input.

I should point out that this is much better than having some menu items accessible from the keyboard such as Amiga-S for save data on Superbase on the Amiga. The difference is that ALL menu items can be selected from the keyboard and you do not have to remember anything except the primary menu keys. When you press the appropriate menu key (like ALT-F for File) then the secondary menu appears just as if you had selected it with a mouse. Thus you can see what the new selection keys for the submenu are. This feature is going to form part of IBMs System Application Architecture so it is going to become the standard way of working on any IBM computer. It is a great idea and Amiga software developers should take it up instantly. How about a new version of Workbench from Commodore for starters!

Transputers

The power struggle between Atari and Commodore has seen some interesting developments of late. Atari have been working on a new computer based on the Inmos Transputer. It is expected to be shown at Hanover and released in the UK and Europe first. Having removed all the system bugs it will then be released in the US. The machine is said to be based on the T800 20Mhz Transputer with a performance of 10mips. There will be 4M of RAM and 1M of video RAM. A custom chip is used to provide a bimmer (bit manipulator) based on an architecture developed in the UK. There will be a 68000 I/O processor and a true DMA SCSI port for a 40M Winchester. The operating system, Helios, has been developed in 'C'. There is only one snag. The price has been estimated at around £3000 so it is not for the hobbyist!

DRAM

All this talk of 4M of RAM is interesting. In the middle of March the impact of a dynamic RAM chip shortage is beginning to be felt. Both Atari and Amstrad have put up prices as a result, and other companies are expected to follow suit. Commodore have stated on Micronet that they have an agreement for a long term supply of chips worked out and they do not intend to raise prices. This has prompted some netters to say that the price difference between the Amiga and the Atari (£100) is so small it is better to pay the extra and get the improved Amiga performance.

A caring, sharing world

One of the trade papers I read prints share prices in the US and I usually look at the performance of Commodore. It is interesting that last August it was around $8.85 going up to $11 prior to the stock market crash. Just recently the price has been rising and at the beginning of March was almost back to previous levels at $8.35. Compare the confidence in Commodore with that in IBM. $160 last August, up to $170 pre crash, $120 post crash and now $113. Apple on the other hand is the only computer manufacturer to be better priced now ($41.75) than last August ($41.25).

Talking of the stock market crash reminds me of a couple of the more original acronyms I picked up from the press at the time:

vlsd - very large scale disintegration as in 'IBM suffered vlsd of their share worth'.

camc - computer aided market crash. Because computers are used to flash information around the world instantly they were naturally blamed for the crash even though it is homo sapiens who acts on the information.

Keeping with acronyms we have had a couple of alternatives within ICPUG of WYSIWYG. A recent ad from Hewlett Packard coined a new one:

WYRIWYG - What you require is what you get.

What a wonderful view of paradise for the poor user of customised software!

Finally a piece of humour attributed to Alan Sugar last May:

"Pan AM takes good care of you
Marks and Spencer loves you
Securicor cares
IBM says the customer is king
At Amstrad we want your money !"

Please send any suggestions for Commodore, Atari etc. wrapped in a £5 note to me please!

***

INTERLACE, SETFONT AND SCNSIZER

by Pete Miles

Interlace is the one mode that would have been useful if it had been something like the high-res display available on IBM machines with EGA or better. As it is it resembles a school report comment "works hard but could do better". In other words, not a lot of bloody use. Still, having said that, you can get it to be of use when displaying text providing you go to a reasonable amount of trouble to set up the colours correctly.

Why should this be necessary? Simply put, the Amiga video system displays 256 lines in one go, and then goes back and fills in the other 256 lines in the gaps between the first lot. The problem is that the first lot have started to fade by then so flicker appears. Flicker is most apparent when the colours are wide apart on the colour spectrum, eg black lines on a white background. The best combinations are when the colours are similar and close together in shade, say blue/greys and blues. In fact the colours I am presently using are blue/grey background and full blue text. Not all that ideal but fine for this exercise. The text does not flicker as the font is made up of several horizontal and vertical lines whereas horizontal lines drawn on the screen such as window borders are often one pixel wide and it is these lines that do the flickering.

Other alterations that can be made with some effect are to the contrast and brightness. The net result is that you can get a reasonable working environment but nothing like a good MS-DOS display on a high-res monitor.

The next part of working in interlace mode is choosing the right font. You can have about 50 lines of text maximum using a very small font, although this is pretty hopeless. The size of font and type of font (ie serif or sans serif), is largely dependent on your perception of what looks right and what you can read with reasonable comfort. For example this text is being typed in Diamond 12 point [just in case you're confused, what you are reading is Helvetica 8 point sans-serif. Pete is referring to his Amiga screen - Ed.]. Ok, it's readable, but I need a taller font though not necessarily wider. The thing to do is get hold of some new fonts and experiment with those. As a guide I would recommend at least 12 point, preferably 14 point. Most important is the height to width ratio, and this can only be ascertained by looking at different fonts.

SCNSIZER Is a public domain program available on Fish disk #79 that allows the maximum size of useable screen to be increased. The program allows you to increase the number of rows and columns to make use of the overscan area of the Amiga. This will allow 81 columns by 60 lines of text. (This i did using Scribble) In this situation you can have a full US letter size (11 inch) page on the screen, although it is barely readable. Nevertheless Scnsizer is a program worth getting. Bear in mind that it might not work with every commercial program. It won't, for example, work with Vizawrite.

The defaults suggested in the readme documents supplied with Scnsizer are worth trying. Then try these

```
1>scnsizer 30 35 -15 -11
```

Set the screen as you want and then get preferences and just do a save. This updates the system-configuration file in the Devs directory. When you boot the Amiga you can now have your larger screen at all times. SETFONT Is another public domain program available on Icpug library disk Dos_1.

Basically this will allow you to change the default screen font the system uses. At the moment the Amiga's operating system defaults to Topaz 11 which is a serif font. Serif fonts don't suit me so that is why I tend to use a sans serif font such as Diamond 12. Unfortunately there is snag. If you set up 'Setfont' to give you Diamond any cli commands will be displayed in an misaligned state, which is obviously no good. There is a good font on Fish disk #61 called Pearl. It is similar to Topaz but seems clearer to me. Another good font is ST on Fish disk #81. This a bit like Diamond but has the added bonus that it will display correctly in the cli.

Before you copy this to your startup-sequence try different fonts simply by typing at the prompt

```
1>setfont <name,size> eg 1>setfont diamond,12
```

Thats about it. Interlace with these two PD programs is worth trying, after all it might suit you. Now if only I had a monitor that turned on its side, longside up and had a paper white screen as an option.

***

REVIEW - COMMODORE MAGAZINES

by Ray Medford

As far as I can ascertain, it was some time in 1986 that the last reference was made to available magazines so, with the advent of the Amiga in various configurations, I thought some sort of update might not come amiss.

Whilst not always believing that all things American are best, I feel that in the UK we do lose out to some degree in the Computer magazine field. So I propose to reserve my views on British publications, with two exceptions. The first of these has to be our very own Newsletter, which I genuinely believe provides such consistent quality from issue to issue that it has to be the best value around to date [we tend to agree - modest but blushing Eds.].

The second concerns the AUG (Amiga Users Group) magazine, available only by subscription (£20 per annum), from Cavendish Commodore in Leicester. Yes, a dealer, but one who seems to be dedicated to Commodore, and to the customers he serves. In spite of the commercial connection, and a somewhat amateurish first few issues, I feel that AUG has learned from its mistakes and is now well worth reading.

The American magazines that I can comment on from practical experience are as follows:

RUN covers the C64 and C128 in depth, with no mention of the Amiga at all. Current price in the UK is £2.00, and is available from most good Newsagents. The standard of articles and type-in programmes is good, with plenty of useful hints and tips in each issue. There is also a special issue published every year; again well worth looking out for.

Compute!'s Gazette is another magazine featuring the C64 and 128 mainly, with no Amiga coverage. This, too, is to be had reasonably easily, from good Newsagents, at £2.60. Noteworthy also, for the level of programmes published. In fact it was one of their writers (now gone on to other fields, alas) who wrote the well known Speedscript word processor.

Compute! is one of the original publications, and covers most of the major machines. This is fine for those who like to have a general view, but galling for the non-owners of IBM, Apple, Atari, Amiga etc. Again, a good standard, but I feel one's money is better spent buying dedicated magazines. See above for price and availability.

Other publications currently available here, although not so generally, are:

Amiga World from the same publishers as RUN. Glossy, well presented, and with a good standard of article. Certainly worth a look, but at £2.50 may only be a casual buy.

Amiga Sentry The only UK source I have found for this is at the Amiga Centre in Edinburgh. As I have read only one issue to date I can not comment in depth. The September 87 issue consisted of 44 pages, excluding covers, and contained only reviews, except for one page of notes from the Editor. The reviews were quite "meaty" and well worth reading, but at a UK cost of £3.00 is very much overpriced. Particularly as the cover price is only $3.00.

INFO is another one from Edinburgh, and manages to convey a newsy, Newsletter feel. Covers all Commodore machines and now incorporates the Midnite Software Gazette. Eminently readable in a gossipy sort of way, and it certainly pulls no punches in its reviews and articles. Price etc., later.

Transactor is one of the best available magazines, (some might say the best), but not directly in this country [since we received this article, which was held over from the last Newsletter, various reports have indicated a UK edition - Ed.] Canadian in origin and currently supporting most Commodore machines, including the Amiga. This will change from January, as there will then be a dedicated Amiga magazine also. Offering much more technical content than the others, with an excellent standard of writing.

Commodore Magazine is a CBM publication, not available here currently. Coverage is mainly of the C64 and 128 but does include the Amiga in reasonable depth. Subscription cost is $50.00, which I think is slightly on the high side, even allowing for the favourable exchange rate at present. Not one that I will renew when the time comes.

Ahoy! (no, it isn't a Boating mag!). Although the subscription cost is lower, $23.00, and it covers 64/128 and Amiga, it is another that I will allow to lapse.

Finally, one of my personal favourites, again for the Amiga user. This is

Amazing Computing, and please do not be put off by the title. This is also to be had from Edinburgh, but is such good value by subscription that I would not hesitate to suggest further investigation. Articles are good, as are the published programmes. There is even comment and up dates on the Amicus and Fish PD disks in each issue.

As you will have noted, I have mentioned above that it is usually far more cost effective to take out subscriptions where possible, particularly in view of the "offers" that most magazines have from time to time. Further, it is usually possible to pay by Credit Card, certainly in the case of Access and Visa. As an example. although here one has to pay by money order, the yearly subscription to Amazing Computing is $35.00 for overseas readers; incredible value.

I trust that the foregoing will provide some food for thought for the avid reader, and if further information is required I am only too pleased to help. The usual SAE please. Oh yes, there is one other magazine that must mention. An absolute newcomer titled Enigma. Again dedicated to the Amiga, the first issue was available at the PCW Show last September, the second, as I write, has yet to appear. Pity really, as it shows some promise.

***

BILL'S BULLETINS

Several members have written in concerning the fate of the Enigma magazine. Apparently, Enigma were taking subscriptions at the PCW show at £20.00 for 12 months. No magazines have been recieved by the subscribers, and further investigations reveal something far more serious.

The Editor and his team have made off with funds in the region of £250,000, mainly from subsriptions and advertisements. The Editor packed his bags and headed for the USA, while the rest have vanished to Israel and Europe.

ICPUG are apalled at this state of affairs, and recommend that members contact their local Trading Standards Officer.

***

8 BITS STUFF!

by Chris Wright.

A little bit of news here. I am currently beta-testing version 3.0 of Superbase on the 128. This version was written for 1581 (3.5 inch) format but will run on all other formats. As the 1581 does not have a burst mode but runs at 8000 baud all the time this feature was written out. 1571 owners will find it runs just a little slower because of this. However, the good news is that we can now port files between drives. This is not a backup feature but from the Export command. Works just dandy. There is also a Utility rogram for the 128 as well as the 64. The 128 version just needs a little more work on it and then version 3.0 will be released by Precision. They hope to have it out by mid to late February so contact them about it. I am afraid that it will not be available for the normal back-up price as a lot of work has gone into this version. Price has not been fixed but I don't think Precision will overcharge. For 1581 owners it is a must.

All of those members who have fitted the new 1571 roms will find that the fast copiers will not work. To get round this my sources tell me that Datel are considering a board for you to keep the old and new roms in the drive. Changing between the two will be by a small switch.

Most of you will have realised that there has been a surge of new software for the 128. This is due to the tremendous sales of 128 Desktops in the States. Software houses are starting to support it more. This usually leads to good Public Domain software as well. We will keep you posted. Mention was made in the last Newsletter of some bugs in the 1581. These were confined to early Stateside models and were traced to a bad soldered ground connection.

Any of you out there with the necessary readies who want a Laser? Epson have brought out the GQ3500 (Hi Voltage discount it very well) which prints 8 pages a minute and is very cheap on consumables. It comes with a Centronics interface and a free Laserjet card fitted. (best of both worlds). You can now use it interfaced direct to the 128. Programs such as Superscript, Superbase, Fontmaster and all the others just treat it as a normal printer hung on the end. There are quite a few of you with Amigas as well so switch in the HP emulation card. By comparison with others this one is cheap to buy, cheap to run and has the Epson name behind it. Got a friendly Bank manager?

***

NETWORK NEWS

by Brian Grainger

It has been six months since the last Network article so I thought an update was in order. There have been a few developments of late so there is also a bit of news to report.

For new members of ICPUG it is worth mentioning that ICPUG supports pages on both Compunet and Prestel although both areas are suffering from lack of a regular editor since I stood down. More of that later.

Back in October last year Cyril Bannister wrote to tell me of a friend of his who lives and works in Finland. Apparently all local calls in Helsinki from a domestic phone have a flat rate charge of 5p irrespective of duration. The phone rental charges are the equivalent of £2 per quarter. There are 70 bulletin boards to choose from which you access via modems rented from the telephone company. Now British Telecom and I have never been great friends. If only we could have a service like that over here. I would be a happy man! It would do a great deal for computer communications.

The next snippet of news concerns Prestel. In its earlier days sending mail via mailbox meant having to ring a London telephone number. This was not particularly cheap unless you lived in he locality of London. Consequently when mailbox went national with no charges levied for the service a great "Hooray!" from Prestel users was heard. Compunet users have, quite rightly, argued that the mail service on Compunet is better because you can send large amounts of data to up to five users at a time very easily. In addition the amount of text on a page and the ability to use Commodore graphics meant a higher quality of mail could be sent. My only concern was that the general speed of Compunet meant it cost me a bit more to send mail by Compunet than it did by Prestel.

Recently, Prestel have been expanding their mailbox facilities and have been testing them out on some, but not all, of the access computers. My access node is not one with the new facilities but I have read about them. Some new features have been added by the use of escape codes. We will be able to turn wordwrap on and off like on a wordprocessor. No more words split between Prestel lines. There will be codes to perform insert and delete just like the INST/DEL keys on the Commodore keyboard. Inserting a blank space is another option. You can move forward or backwards a word at a time or perform a carriage return. It is also possible to move to the end of the text. Finally there is a verify option to check for line noise. All of these changes are concerned with making the editing of mailboxes an easier exercise. Promises have also been made to introduce the ability to send longer mailboxes, do multiple mailings and send forward received mail. When the ability to do these things is available Prestel mailbox will be as flexible as Compunet Courier.

Ron Geere, ICPUG's first newsletter editor, sent me a press cutting in November telling how a rival to Prestel had appeared. In the early days of Prestel many will remember a company called Timefame who ran an excellent chatline service. They eventually had an argument with Prestel and withdrew from the network. In November Timefame Epnitex went live. They aimed themselves squarely at the business market although there was an approach for ICPUG to have a presence on the system. However the prices to use the service seem to preclude the hobby user.

As I mentioned in the last Network News I no longer subscribe to Compunet. Nevertheless, I get the odd snippet of news via Prestel, hopefully true. According to one gentleman, off-peak unlimited connect charge has gone up from £3 a quarter to £8.50. Obviously they have made some changes to the charging structure. Am I glad I left Compunet. They seem to change the prices every five minutes (always upwards). In the five years I have been on Prestel the standing charge and the Micronet sub have gone up once.

If an ad in Computer Weekly at the end of February is anything to go by the computer network equivalent to the gutter press has arrived. Advertised as 'Desire' on-line service it gives a choice of five services - Chatter Box, Mailbox, Desire Classified, Graffiti Corner and Debbie Desire's Problem Page! I should point out that the latter service is advertised as an Agony Aunt type facility, not a technical help desk. The service comes via one of those 38p per minute telephone services. I cannot see much future for it myself!

I mentioned in the last Network News that I had joined Telecom Gold via Interlink Gateway from Prestel. At that time I had not used Gold. In fact I still hadn't until my last Prestel bill. When I realised I was being charged storage on Gold when I had not even logged on I thought it was time to investigate. I found that on joining via Interlink two blocks of data are automatically created. Although this was mentioned in the small print after joining I cannot find any reference in the offer literature. One block of data held information which made it easier to use Gold via a viewdata terminal. The second block contained - my name. Investigations have revealed I could delete both these blocks and save the cost. From a practical viewpoint only the one containing the name should be deleted unless you want a lot of hassle. I queried the charges with Prestel (who have a habit of making a bill incomprehensible when a little out of the ordinary). They tell me I will not be billed further. Seeing is believing. I offer this information as a warning to other potential Gold users via Interlink.

Over the years ICPUG has supported Y2 Computing quite actively. Y2 have produced most of the Viewdata software packages for Commodore machines. I have seen a number of critical comments of Y2 on Prestel and have been surprised as I have always found them very helpful. Regretfully I now have to report otherwise. Last year I was sent a mailbox offering an upgrade to my Rubyview software for the Amiga at £10. I sent my original Rubyview disk and £10 and got no response. My first phone call obtained the information that a mistake had been made and the updated Rubyview was not much different than my version. I was told that my cheque would not be cashed and it hasn't. Some time later I phoned again querying what was happening and asking for my original disk back which had been paid for. Promises were made to send it but nothing happened. Finally, in desperation I wrote to Y2 on the 3rd February formally asking for my disk back. Over a month later still no reply. If this is how Y2 treats someone it knows I can now understand why some other customers are rather irate with the company. Once again you have been warned. Unfortunately Y2 are in a monopoly position regarding the viewdata software market. However I do not consider that gives them the right to ignore their customers however busy Y2 themselves might be.

At the beginning of this article I mentioned that ICPUG did not have any regular editors for its pages on the networks. We had hoped to have someone editing the Prestel pages but complications set in at the last minute so these pages are rarely changed. I am not sure how frequent Compunet is updated although I know that Jack Cohen looks after CUG registrations. Seeing as the AGM is near any budding editors will no doubt be welcome. For Compunet not many qualifications are needed except enthusiasm and access to Compunet. For Prestel it reuires a bit more. Namely local call access to London and, if you are not already a Prestel Editor, the patience to wait for and attend a one day training course. Any potential editors might like to make themselves known at the AGM or before.

*** SPECIAL OFFERS FOR ICPUG MEMBERS ***

As Commodore specialists since 1978 we can often help with useful bits and pieces that you won't find elsewhere - at prices that are right.

INCREDIBLE! A500 512k EXPANSION ONLY £79

Price held while stocks last - includes clock/calendar

MIDI FOR AMIGA ONLY £25 (A500) £30 (A1000)

1571 UPGRADE ROM - CURE THE BUGS FOR £10

NEW AMIGA 1000s - MAKE US AN OFFER!

A1000 - 1081 monitors - 10Mb hard disk for A1000 (with pass-thru)

AMIGA SOFTWARE - CRAZY PRICES

Deluxe Paint £19; Deluxe Print £19; Graphicraft £12; Grand Slam Tennis £15; Winnie the Pooh £15; Impact £13

BULK-PACKED BLANK DISKS

Double-sided 3.5in 50 for £49; 100 for £95; 200 for £179
Coloured 5.25in 50 for £25; double-sided black 5.25in 50 for £19

COMMODORE 64/128 BARGAINS

EasyScript £10; Future Finance £10; Master 64 £20; 64 Programmers Reference Guide £5; Inside the 64 (source listing) £5

CBM 128 SOFTWARE - RARE!

CAD 128 £49.95; 128 Plus £19.95; Blitz 128 compiler £29.95; Power C £49.95; Zoom 128 £14.95; Help cartridge £39.95; Swift spreadsheet £24.95; Accountability £99.95; Test Cricket £9.95 (tape) £11.95 (disk)

PET SOFTWARE - EVEN RARER!

Word processors, databases, spreadsheets, games - phone for a free list. We also sell and repair PET hardware (2001/3000/4000/8000 series)

Add 15% VAT to all prices except 128 software & books

SUPERSOFT

Winchester House, Canning Road, Wealdstone, Harrow HA3 7SJ
Phone: 01-861 1166 Fax: 01-861 1773

STOP PRESS - PROGRAMMERS WANTED!

Our associated company *Audiogenic* is aiming to follow up the success of *Impact* with more astounding Amiga games. Can you help? Phone Nigel Alderton, Software Development Manager, on 01-861 1166 now!

COMAL DISKS FOR THE CARTRIDGE AND 0.14

by Brian Grainger

The following disks of programs are available from me subject to the usual conditions. State clearly the title of the disk, particularly whether it is the 0.14 or 2.01 side requested, send a suitable number of disks (one per side), and return postage. Copies will then be dispatched to you.

These disks are from the USA and back up COMAL TODAY issues 14 and 15. No instructions are provided, although usually there are no problems. Refer to me (or COMAL TODAY) in case of severe difficulties. I will explain the more complex programs in COMAL CORNER next time. For each issue 2 disks are provided. One is for use with the disk based 0.14 version of COMAL. The other for use with the cartridge 2.01 version. There are programs unique for each version as well as some provided for both versions.

The fast loaders on the 0.14 sides do NOT work outside the USA. You are strongly advised to load COMAL from the fast loading starter disk anyway.

```
-------------------------

td#version.14 ea 2a
-------------------------

7    boot c64 comal    prg
131  c64 comal 0.14    prg
5    comalerrors       seq
4    ml.sizzle         prg
12   hi                prg
21   menu              prg
0    ---------------- usr
0    !comal programs! usr
0    ---------------- usr
23   bridge'evaluator prg
5    c'curve           prg
17   calendar          prg
9    define'keys       prg
15   demo/window       prg
24   fancy'lettering   prg
38   graphic'solution prg
18   guessmycode       prg
3    house'and'window prg
```

```
11   listerine         prg
14   planet'earth      prg
7    program'outliner prg
4    right'turn'only  prg
16   simple'term       prg
11   sort'dir          prg
12   square'clock      prg
7    terminal          prg
5    uniform'poly      prg
19   wumpus            prg
0    ---------------- usr
0    !programs from ! usr
0    !   toledo     ! usr
0    !  christian   ! usr
0    ! high school  ! usr
0    ---------------- usr
26   bill'paint        prg
12   demo/muppet'keys prg
9    designs           prg
15   guitar            prg
10   helicopter        prg
```

```
10   house             prg
11   linear'graph      prg
30   matching          prg
3    moving'hi         prg
14   patterns          prg
13   rocket            prg
41   shape'up          prg
0    ---------------- usr
0    !   functions  ! usr
0    ---------------- usr
1    free.func         seq
1    pi.func           seq
2    sigdig.func       seq
0    ---------------- usr
0    !  data files  ! usr
0    ---------------- usr
0    ! do not load  ! usr
0    ---------------- usr
13   comalhelp.txt     seq
2    programs.dat      seq
2    window-rs232.obj prg
2    window-sprit.obj prg
0    ---------------- usr
0    !basic program ! usr
0    !to copy files ! usr
0    ---------------- usr
0    ! do not load  ! usr
0    !  from comal  ! usr
0    ---------------- usr
6    copyfile2.basic  prg
0    ---------------- usr
0    !for more info ! usr
0    ! send sase to ! usr
0    ---------------- usr
0    ! comal users  ! usr
0    !  group, usa  ! usr
0    ! 6041 monona  ! usr
0    ! madison, wi  ! usr
0    !    53716     ! usr
0    ---------------- usr
```

```
0    !(608)222-4432 ! usr
0    ---------------- usr
3 blocks free
-------------------------
td#14 version2.0 eb 2a
-------------------------
17   hi                prg
0    ---------------- usr
0    !comal programs! usr
0    ---------------- usr
24   1520-calendar     prg
1    chip.modem        prg
12   custom'dir        prg
4    demo/dualscreen   prg
8    demo/spritemaker prg
21   guess'my'word     prg
16   guessmycode       prg
14   inventory-1       prg
23   inventory-2       prg
13   inventory-3       prg
11   listerine         prg
14   multi'directory   prg
74   old'mansion.pop   prg
71   package'maker     prg
24   petals            prg
7    program'outliner prg
10   puzzle            prg
5    right'turn'only   prg
38   scene'magic       prg
10   sort'dir          prg
4    trig-art          prg
19   wumpus            prg
0    ---------------- usr
0    ! unprotected  ! usr
0    !  version of  ! usr
0    !data base from! usr
0    ! today disk 8 ! usr
0    ---------------- usr
3    db'boot           prg
```

```
12  db'define          prg
4   db'help            prg
15  db'labels          prg
21  db'maintenance     prg
7   db'menu            prg
35  db'report          prg
9   db'sort            prg
9   db'squash          prg
0   ---------------- usr
0   !data files for! usr
0   !  data base   ! usr
0   ---------------- usr
0   !copy with data! usr
0   ! base to new  ! usr
0   !     disk     ! usr
0   ---------------- usr
4   db'data            seq
6   db'help.def        seq
6   db'help.lab        seq
6   db'help.rpt        seq
1   db'name            seq
0   ---------------- usr
0   !  data files  ! usr
0   ---------------- usr
0   ! do not load  ! usr
0   ---------------- usr
5   dat.mansion        seq
18  sng.polka/str      seq
0   ---------------- usr
0   !   functions  ! usr
0   ---------------- usr
5   func.get'input$    seq
2   func.sigdig        seq
0   ---------------- usr
0   !  procedures  ! usr
0   ---------------- usr
1   proc.steal'shape seq
1   proc.swap          seq
0   ---------------- usr
0   ! source code  ! usr
```

```
0   ---------------- usr
3   lib.labels         seq
5   src.test'package seq
0   ---------------- usr
0   !   packages   ! usr
0   ---------------- usr
32  pkg.c128           seq
5   pkg.dualscreen     seq
6   pkg.pllprt         seq
2   pkg.test'package seq
0   ---------------- usr
0   !for more info ! usr
0   ! send sase to ! usr
0   ---------------- usr
0   ! comal users  ! usr
0   !  group, usa  ! usr
0   ! 6041 monona  ! usr
0   ! madison, wi  ! usr
0   !    53716     ! usr
0   ---------------- usr
0   !(608)222-4432 ! usr
0   ---------------- usr
1 blocks free.
------------------------
td#15-version.14 fa 2a
------------------------
7   boot c64 comal     prg
131 c64 comal 0.14     prg
5   comalerrors        seq
4   ml.sizzle          prg
12  hi                 prg
21  menu               prg
2   window-rs232.obj prg
0   ---------------- usr
0   !comal programs! usr
0   ---------------- usr
33  1520-3d'airplane prg
2   buffer'display     prg
36  doctorwhodb        prg
```

```
8   draw'universe      prg
6   edit'wheel'data    prg
7   kaprekar           prg
22  merge'procs        prg
2   print'captured     prg
6   print'dr'who       prg
3   qlink'to'listing prg
30  recursivedesigns prg
32  wheel'of'fortune prg
0   ---------------- usr
0   !  functions   ! usr
0   ---------------- usr
1   curcol.func        seq
1   currow.func        seq
1   enhanced.func      seq
1   file'exists.func seq
1   free.func          seq
2   freefile.func      seq
1   gettime.func       seq
1   pi.func            seq
1   round.func         seq
1   trunc.func         seq
1   val.func           seq
0   ---------------- usr
0   !  procedures  ! usr
0   ---------------- usr
1   call.proc          seq
2   circle.proc        seq
1   clearkeys.proc     seq
1   create.proc        seq
1   cursor.proc        seq
2   dir.proc           seq
1   drive8.proc        seq
1   drive9.proc        seq
3   expand'ram.proc    seq
1   fillkeys.proc      seq
1   getbackgrnd.proc seq
2   inkey.proc         seq
1   input'at.proc      seq
4   joystick.proc      seq
```

```
2   koala.proc         seq
1   lightpen.proc      seq
8   load'errors.proc seq
1   load'obj.proc      seq
3   loadfont.proc      seq
4   loadshape.proc     seq
1   mount.proc         seq
3   paddle.proc        seq
1   page.proc          seq
3   plot'text.proc     seq
1   print'at.proc      seq
2   quicksort.proc     seq
1   repeatkeys.proc    seq
2   save'obj.proc      seq
2   saveshape.proc     seq
1   settime.proc       seq
1   shift'wait.proc    seq
1   str.proc           seq
1   textcolors.proc    seq
1   turbo.proc         seq
0   ---------------- usr
0   ! listed files ! usr
0   ---------------- usr
0   !several procs ! usr
0   !and funcs that! usr
0   !work together ! usr
0   ---------------- usr
8   1520driver.lst     seq
2   1571.lst           seq
2   bit'funtions.lst seq
4   read'block.lst     seq
8   sound'system.lst seq
0   ---------------- usr
0   !  data files  ! usr
0   ---------------- usr
0   ! do not load  ! usr
0   ---------------- usr
36  hrg.wheel          seq
2   load/save.mem      prg
144 ran.doctorwho      rel
```

```
10   ran.wheel         rel
0    ----------------  usr
0    !for more info !  usr
0    ! send sase to !  usr
0    ----------------  usr
0    ! comal users  !  usr
0    !  group, usa  !  usr
0    ! 6041 monona  !  usr
0    ! madison, wi  !  usr
0    !    53713     !  usr
0    ----------------  usr
0    !(608)222-4432 !  usr
0    ----------------  usr
5 blocks free

----------------------
td#15-version2.0 fb 2a
----------------------
17   hi                prg
0    ----------------  usr
0    !comal programs!  usr
0    ----------------  usr
12   bird'data'corr    prg
33   bird'filer        prg
2    buffer'display    prg
27   can'you'tell'me   prg
35   chip.airplane     prg
6    demo/echo         prg
6    demo/irq1         prg
6    demo/irq2         prg
21   demo/irq3         prg
5    demo/irq4         prg
11   demo/matrix       prg
22   demo/statistics   prg
17   demo/text         prg
5    demo/tron         prg
4    demo/turnto       prg
39   doctorwhodb       prg
6    draw'snowflake    prg
12   draw'universe     prg
```

```
7    kaprekar          prg
10   list'dr'who       prg
2    print'captured    prg
4    print'dr'who      prg
3    qlink'to'listing  prg
31   recursivedesigns  prg
29   rotate            prg
56   sky'view          prg
3    tempered'chords   prg
41   type'quick        prg
0    ----------------  usr
0    !  data files   ! usr
0    ----------------  usr
3    bf.birds of prey  seq
3    bf.chickadee/tit  seq
3    bf.jays/crows     seq
4    bf.woodpeckers    seq
25   dat.bird'master   seq
4    dat.capitols      seq
1    dat.quiz'menu     seq
6    dat.rotate1       seq
6    dat.rotate2       seq
6    dat.rotate3       seq
12   dat.world'cap     seq
0    ----------------  usr
0    !  functions    ! usr
0    ----------------  usr
1    func.left$        seq
1    func.mid$         seq
1    func.mid2$        seq
1    func.right$       seq
0    ----------------  usr
0    !  procedures   ! usr
0    ----------------  usr
1    proc.type         seq
0    ----------------  usr
0    !  packages     ! usr
0    ----------------  usr
3    pkg.echo          seq
5    pkg.irq           seq
```

```
6    pkg.matrix        seq
7    pkg.text          seq
9    pkg.windows       seq
30   src.irq           seq
17   src.matrix        seq
32   src.text-1.02     seq
0    ----------------  usr
0    ! listed file   ! usr
0    ----------------  usr
3    lst.turnto        seq
0    ----------------  usr
0    !for more info !  usr
```

```
0    ! send sase to !  usr
0    ----------------  usr
0    ! comal users  !  usr
0    !  group, usa  !  usr
0    ! 6041 monona  !  usr
0    ! madison, wi  !  usr
0    !    53713     !  usr
0    ----------------  usr
0    !(608)222-4432 !  usr
0    ----------------  usr
2 blocks free.
```

⁂

COMAL CORNER

by Brian Grainger

Just a couple of snippets of news. Last time I mentioned that Enhancer-1541 on Today Disk 12 would not load because it called up the US fast loader. I got a couple of replies to my request for a modified version. However the solution is rather simple. Enhancer-Others will work. The only trouble is the boot loader will check the disk drive and load Enhancer-1541 automatically. If you want to use Enhancer then the simple answer is to load Enhancer-Others from BASIC and type RUN. It will be a slow loading COMAL unfortunately. Nevertheless, Enhancer is quite a useful facility and it may well be worth the time waiting for COMAL to load. Thanks go to Jim Perkins, his mate John Knowles and John Kelly for their help. They have been rewarded with copies of COMAL Today, the magazine, as promised.

The next snippet comes from David Pirie. Like me he uses COMAL on a 64 and an IBM PC. He tried the following program on the 64:

```
ZONE 20
ai#:=-7; ar:=-7
bi#=4; br:=4
print ai# div bi# = ;ai# DIV bi#,
print ai# mod bi# = ;ai# MOD bi#
print ar div br = ;ar DIV br,
print ar mod br = ;ar MOD br
print -7 div 4 = ;-7 DIV 4,
print -7 mod 4 = ;-7 MOD 4
print -7 div bi# = ;-7 DIV bi#,
print -7 mod bi# = ;-7 MOD bi#
print ai# div br = ;ai# DIV br,
print ai# mod br = ;ai# MOD br
print ar div 4 = ;ar DIV 4,
print ar mod 4 = ;ar MOD 4
print ar div bi# = ;ar DIV bi#,
print ar mod bi# = ;ar MOD bi#
print -7 div br = ;-7 DIV br,
print -7 mod br = ;-7 MOD br
print ai# div 4 = ;ai# DIV 4,
print ai# mod 4 = ;ai# MOD 4
```

When run the results were the same in every combination, -1 for the DIV result and -3 for the MOD result. Not surprising you may think. When the equivalent program was run on the PC the results varied. Either the result was -1 and -3 as before or sometimes the result was -2 and 1. If you think about it both results are valid in their own way. Does anybody know how mathematically the DIV and MOD function should work? Is the Commodore 64 answer of -1,-3 right or should it always keep the remainder positive and therefore the result should always be -2,1? What answers do the various versions of Pascal provide, or other languages for that matter?

***

AMIGA LIBRARY

by Pete Miles

We have been having problems with the disks rather than the programs, so it has taken somewhat longer to return your requests for the new Amiga Users set than we had anticipated. Sorry about that.

We would recommend all Amiga users to buy only good quality named disks. Cheap disks are relatively unreliable and it is not worth the risk of losing your data for the sake of a pound or two.

***

PLUS4ORTH UPDATE NOTES

by Richard Hunt

Update no.1, March 1988 - BUG

No, really? Yes, actually. Apologies to all those who have Plus4orth which shows HERE to be located at $5743 on initialisation. There are probably still a few that I have not contacted or corrected. I discovered a problem with OUT caused by an incomplete understanding of how EMIT worked. Both understanding and bug have been corrected. How do you know? Easy: enter at the intitialisation message (Plus4orth &c) HERE .H <return>. If the system responds 5743 OK, please send me the disk and I shall place the corrected copy of Plus4orth thereon. If the system responds 5745 OK, it is as the machine say, OK. This has also had a knock-on effect on some of the addresses of assembler constants on screen 8 of the listing. Erratum sheet no.1 has been sent out with all amended copies details the changes.

So much for the difficult bit which applies only to those with this piece of software. The rest will be of interest not only to them but also to anyone interested in Forth.

I have never been fully satisfied with the RETRIEVE and SAVE routines as implemented in Plus4orth. I was very pleased to discover a version of Forth for MSDOS with some definitions which provide alternative I/O routine possibilities. The words permit quote-delimited text to be accepted to PAD under various conditions. When worked into file load and save word definitions they not only make loading and saving look more familiar but may be used from within editing screens immediately or in colon definitions. These options open the way to using overlay techniques in application programming, and the efficient use of memory. The source of these words is shown below.

A further bonus is the definition of ABORT, which will simply display a message of your choice in a given error situation and clear the stack before QUITting.

Incidentally, the Forth source code included has been written to disk using the sequential file words described in the article that launched the Forth library (January 1988 issue). They too need re-definition in terms of the quote words, nevertheless the definitions are 100% accurate, being untouched by hand!

```
SCR # 1
  0 ( QUOTE DELIMITED TEXT)
  1
  2 :  ( ACCEPT TEXT DELIMITED BY  TO PAD WITH COUNT)
  3    34 WORD PAD C/L BLANKS HERE  PAD HERE C@ 1+ CMOVE ;
  4
  5 : ()  ( MOVES TEXT IN DEFINITION TO PAD)
  6      PAD C/L BLANKS R PAD R C@ 1+ R> OVER + >R CMOVE ;
  7
  8 : [  ( AS  BUT GET TEXT IN DEFINITION THEN TO PAD AT EXEC)
  9     COMPILE () 34 WORD HERE C@ 1+ ALLOT ; IMMEDIATE
 10 ;S
 11
 12
 13
 14
 15

SCR # 2
  0 ( ERROR HANDLING ABORT)
  1
  2 : (AB) PAD COUNT TYPE SP! QUIT ;
  3
  4 : ABORT   ( F --- ; ABORT EXECUTION AND TYPE A MESSAGE)
  5             IF F IS TRUE)
  6     [COMPILE] IF [COMPILE] [ COMPILE (AB)
  7     [COMPILE] THEN ; IMMEDIATE
  8 ;S
  9
 10
 11
 12
 13
 14
 15

SCR # 3
  0 ( [LOAD] [SAVE] EXECUTABLE IN DEFINITIONS)
  1
  2 : SETLF 8 DEVICE 8 SETLFS ;  ( FOR CONVENIENCE)
```

```
  3 : SETNA PAD COUNT SETNAM ;  ( FOR CONVENIENCE)
  4
  5 : [LOAD] (--- CCCC; IN COLON DEFINITION)
  6          COMPILE SETLF [COMPILE] [ COMPILE SETNA
  7          COMPILE (LOAD) ; IMMEDIATE
  8
  9 : [SAVE] ( N1 N2 --- CCCC; AS FOR [LOAD] )
 10          COMPILE SETLF [COMPILE] [
 11          COMPILE BLOCK-RANGE COMPILE FSTART COMPILE @
 12          COMPILE FEND COMPILE @
 13          COMPILE (SAVE) COMPILE 2DROP ; IMMEDIATE
 14 -->
 15

SCR # 4
  0 ( LOAD AND SAVE EXECUTABLE DIRECT OR EDITING MODE)
  1
  2 : LOAD ( --- FILENAME)
  3        8 DEVICE 8 SETLFS
  4         PAD COUNT SETNAM
  5        (LOAD) ;
  6
  7 : SAVE ( N1 N2 --- FILENAME)
  8        8 DEVICE 8 SETLFS
  9         PAD COUNT SETNAM
 10        BLOCK-RANGE FSTART @ FEND @
 11        (SAVE) 2DROP ;
 12 -->
 13
 14
 15

SCR # 5
  0 ( LOAD[ SAVE[ - LOAD/SAVE IRRESPECTIVE OF STATE, RGH 880103)
  1
  2 : LOAD[ STATE @ IF
  3         [COMPILE] [LOAD]  ( FOR USE IN DEFINITIONS, )
  4         ELSE LOAD THEN ; IMMEDIATE
  5
  6 : SAVE[ STATE @ IF
```

```
            [COMPILE] [SAVE]
          ELSE SAVE THEN ; IMMEDIATE
;S
```

NB: DEVICE is a constant that holds the value 8 for disk or 1 for tape. The words in the I/O definitions are implementation dependent and pass parameters to the KERNAL routines.

An example of the use of the LOAD[word is contained in the following screen which I use as the second screen of a boot-up screen.

```
SCR # 18
( BOOT SCREEN 2)
: LOAD[ STATE @ IF
          [COMPILE] [LOAD]
        ELSE LOAD THEN ; IMMEDIATE
: SAVE[ STATE @ IF
          [COMPILE] [SAVE]
        ELSE SAVE THEN ; IMMEDIATE
LOAD[ PLUS4.EXT EMPTY-BUFFERS 1 LOAD
LOAD[ UTIL EMPTY-BUFFERS 1 LOAD
LOAD[ EDITOR EMPTY-BUFFERS 1 LOAD
CR . PLUS4ORTH LOADED AND READY
;S
```

One aspect of Forth for the Plus 4 which I have not yet fully addressed is Graphics. Personally, I find graphics difficult and tiresome, since they are not particularly spectacular on that machine. However I have been working on them and the following five screens show the result to date. They enable a point to be plotted, and lines, circles and angular shapes to be drawn, but not filled. The definitions make use to a large extent of existing ROM routines, and thus the required syntax is similar to the BASIC syntax, but of course must be expressed in RPN! All parameters are mandatory, and there are no defaults. The machine code replaces the BASIC parameter passing. It is possible that further error checking should be introduced. I recommend changing colour to a black screen and light ink so that results may be made visible.

```
SCR # 1
( GRAPHICS VOCAB HIRES INITIALISER   RGH 871124)
VOCABULARY GRAPHICS   GRAPHICS DEFINITIONS HEX
CREATE (GRAPHIC) SMUDGE
  B5 , E786 , BDAA , C637 , 83C5 , 45F0 , 8385 , D0AA , 2009 ,
C7C9 , 40A9 , 25A2 , 33D0 , AD  C, FF06 , 2009 , 8D  C, FF06 ,
AD  C, FF07 , EF29 , 8324 ,  210 , 1009 , 8D  C, FF07 , AD  C,
FF12 , C329 ,  809 , 8D  C, FF12 , AD  C, FF14 ,  329 ,
1809 , 8D  C, FF14 , 28A9 , 19A2 , 8324 ,  110 , 854A ,
8687 , 2088 , HERE D +    , 904A , 2003 , C567 , E7A6 ,
4C  C, 1197 , E7A6 ,  2B5 , 60 C,

: NOT-IN-RANGE? >R >R DUP DUP R> < SWAP R> > OR ;
-->
```

```
SCR # 2
( GRAPHIC GRABORT GRAPHIC SCNCLR SCALE RGH 871124)
: GRABORT 5 MESSAGE SP! QUIT ; HEX
: GRAPHIC   ( N1 N2 ---)
( PARAMETERS N2 0 OR 1 = DO/DON'T CLEAR)
( PARAMETERS N1 0,1,2,3,4)
  DEPTH 2 < IF GRABORT THEN
    0 1 NOT-IN-RANGE? ROT
          0 4 NOT-IN-RANGE? ROT OR IF GRABORT ELSE
          (GRAPHIC) THEN ;
CREATE SCNCLR  SMUDGE E786 , 20 C, C567 , E7A6 , 4C C, 1056 ,


2AD CONSTANT XLOC   2AF CONSTANT YLOC
-->
```

```
SCR # 3
( GRAPHICS XYSET LOCATE PLOT   RGH 971128)
CREATE (XYSET)  SMUDGE E786 , 20 C, C2AD , 02B0 ,
      05A9 , 00A9 ,  E7A6 , 4C C, 151F ,
CREATE (PLOT) SMUDGE E786 , 20 C, C1A5 , E7A6 , 4C C, 1056 ,
: LOCATE ( X Y ---) YLOC ! XLOC ! ;
: PLOT ( X Y --- )
          LOCATE (XYSET) -DUP IF MESSAGE SP! QUIT ELSE
          (PLOT) THEN ;
-->








SCR # 4
( GRAPHICS CIRCLE)
HEX   : GRCOL 84 C! ;
2D0 CONSTANT XRAD   2D2 CONSTANT YRAD    E9 CONSTANT
SEGDEG
2D8 CONSTANT STARC  2DA CONSTANT ENDARC   7F CONSTANT
ROTARC
2CC CONSTANT MIDX   2CE CONSTANT MIDY
CREATE (CIRCLE) SMUDGE  E786 ,
A2 C, 2023 , C2D3 ,
A5 C, ROTARC C, A4 C, ROTARC 1+ C, 20 C, BC59 , 2DA2 ,
2BA0 , 20 C, C305 , E90 , 68A9 , 1A0 , 20 C, C2F9 , 9D C, XLOC ,
 9D98 , XLOC 1+ , 3A2 , BD C, XRAD , 9D C, XRAD 4 + , CA C,
F710 , 90A9 , 20 C, BCD5 , 7A2 , BD C, XRAD , 9D C,
ENDARC 2 + , CA C, F710 , 20 C, BCEE , 20 C, C37B ,
A6 C, SEGDEG C, 18 C, A5 C, SEGDEG C, 5D0 , 5A9 ,
4C C, HERE 7 + , 20 C, C0B9 , A9 , E7A6 , 4C C, 151F ,
-->


SCR # 5
( GRAPHICS CIRCLE  BOX  RGH 871205)
0 STARC !   360 ENDARC !   0 ROTARC C!  2 SEGDEG C!

: CIRCLE ( CS A B XR YR  --- )
       YRAD ! XRAD !
       MIDY ! MIDX ! GRCOL
  (CIRCLE) IF GRABORT ELSE DEPTH IF DROP THEN THEN ;


CREATE (BOX) SMUDGE E786 , BD C, 2E8 , AA C,
20 C, BB06 , E7A6 , 4C C, 1065 ,
: BOX  ( CS A1 B1 A2 B2 ANGLE PAINT --- )
      0 1 NOT-IN-RANGE? IF GRABORT THEN 2E8 C!
      XRAD ! STARC ! ENDARC ! MIDY ! MIDX !  GRCOL
      (BOX) ;
;S ( TO BE CONTINUED...SOMETIME!)
```

⁂

PLUS 4 LIBRARY

by Richard Hunt

My thanks to all contributors everywhere for the new library programs, and comments on existing ones. An eleventh disk is being collected and will be announced when it is ready, so please don't ask for it until then.

During April and May, because of attendance on courses, I shall not be at home for a total of five weeks. Please do not expect copying to be done with my usual turnaround. Indeed it is likely that a backlog will be created, and no, that is not the 12th disk! Be prepared therefore either for a delay or preferably defer your requests until later. The dates to avoid are 10-30 April and 16-30 May. Obviously the week following those periods could be problematic, as I try to catch up. Your patience will be appreciated.

⁂

C64 LIBRARY NOTES

by David Miller

It it seems like only yesterday that it was my first copy date for the Newsletter. Well, when you have to try to get so many things done at once, time really runs away with you. So here are the results of the time spent slaving over a hot keyboard. A new Catalogue disk is now available as well as five new 64 disks (listing at the end of this note, providing that the editor refrains from hacking them out).

These disks are as follows :-

```
Catalogue #2  :  New Catalogue disk.
disk  A2      :  Adventure/Maze Games.
      E1      :  Educational.
      G3      :  Games.
      M3      :  Music.
      R3      :  Graphics.
```

All the new disks including the catalogue have a new loader. It is simpler to operate and provides more information on each item, as well as a method of using the loader on your own disks and a facility to you print out the bootdata file to printer for your own reference.

I would like to ask for some help. I wish to compile a list of members who would be willing in the future to become library copiers. Its a worthwile job, unpaid, but you get in contact with some very friendly people, so just drop me a line and I will put your name on the list. I might call you next week or next year but I do require a small backup force.

I hope that by the time you read this I will have received even more disks for inclusion in the library. So, it's back to the grindstone and many more sessions burning the midnight oil. The night is still young (well actually it's 3.30am and the wife said that if I don't come to bed early she will sight the computer as co-respondant in the divorce court), so off I go to bed ... early (well early in the morning).

```
0   icpug cat  c2 2a
30    autoboot        prg
6     printbootdata   prg
11    autodoc         seq
7     list-me.a1      prg
7     list-me.a2      prg
13    list-me.b1      prg
7     list-me.e1      prg
9     list-me.g1      prg
8     list-me.g2      prg
8     list-me.g3      prg
7     list-me.m1      prg
6     list-me.m2      prg
3     list-me.m3      prg
8     list-me.r1      prg
8     list-me.r2      prg
6     list-me.r3      prg
15    list-me.u1      prg
17    list-me.u2      prg
14    list-me.u3      prg
18    list-me.u4      prg
2     shifthold       prg
4    boot.data        seq
12   library help     prg
426  blocks free

-------------------------
0  icpug adventures a2 2a
30    autoboot         prg
6    printbootdata     prg
11   autodoc           seq
67   o'hare's venture  prg
65   o'hare's adv. #2  prg
124  eye of kadath     prg
52   labrieth-maze     prg
99   jardin castle     prg
33   run riki          prg
45   doors             prg
4    boot.data         seq
123  blocks free
```

```
--------------------------
0  icpug education  e1 2a
30   autoboot             prg
6    printbootdata        prg
11   autodoc              seq
4    boot.data            seq
7    easy.seq.read        prg
9    802screendump        prg
34   stock market         prg
27   school marm          prg
38   quiz framework       prg
36   big ohm's law.c2     prg
32   circuit 1.c2         prg
33   circuit 3.c2         prg
37   circuit 4.c2         prg
63   circuits.c2          prg
51   dfw resist.c2        prg
71   electrical pr.c2     prg
31   fuse.c2              prg
37   morse code.c2        prg
57   readability.40       prg
50  blocks free

-------------------------
0  icpug games        g3 2a
30   autoboot             prg
11   autodoc              seq
6    printbootdata        prg
15   atomic handball      prg
14   backgammon           prg
93   british monopole     prg
1    cupid loader         prg
7    cupids revenge.2     prg
78   dodge city poker     prg
34   dominoes             prg
10   flips                prg
29   locksmith            prg
33   pac-man!             prg
34   quix                 prg
4    quix.doc             seq
```

```
48   snoopy run.2       prg
42   square 15          prg
19   wet paint          prg
19   world.powr.sim     prg
5    boot.data          seq
124  blocks free

-------------------------
0 icpug music       m3 2a
30   autoboot           prg
11   autodoc            seq
39   brandenburg1       prg
16   dancing in dark    prg
16   daniel             prg
13   downtown           prg
13   elephant walk      prg
17   end of time        prg
22   evergreen          prg
18   ewok theme         prg
21   flashdance         prg
27   ghost buster       prg
15   girls want fun     prg
19   gloria             prg
10   godfather          prg
8    golden brown       prg
24   golliwog           prg
11   hart to hart       prg
14   hello dolly        prg
14   hill st blues      prg
24   maniac             prg
17   mash theme         prg
11   offcr & gent       prg
25   pink panther       prg
16   what is love mk2   prg
24   white wedding      prg
5    prancer.mus        prg
6    hello.mus          prg
```

```
3    boot.data          seq
7    windy.mus          prg
9    got a friend.mus   prg
6    got a friend.wds   prg
40   prancer.pic        prg
5    hello.wds          prg
5    windy.wds          prg
7    when/loved.mus     prg
8    fame.mus           prg
42   sidpic v2.5        prg
44  blocks free

-------------------------
0  icpug graphics   r3 2a
30   autoboot           prg
6    printbootdata      prg
11   autodoc            seq
37   chareditor         prg
7    chareditor text    prg
8    optical illusion   prg
19   winter wonder      prg
4    winter.obj         seq
40   winter.pic         prg
61   hh graphics        prg
61   hh graphic5        prg
3    world flags        prg
41   world flags.d      prg
1    sys 40784.d        prg
9    hyrez ldr          prg
4    hyrez              prg
9    contortion cube    prg
42   mt rushmore        prg
154  meat loaf          prg
3    boot.data          seq
114  blocks free

-------------------------
```

Well thats all for now. Don't all rush out to the postbox right away, just a few at a time, please. Remember, only two disks and no flippies.

CP/M NEWS FOR THE 128

by Chris Wright

Apologies first to those who had to wait a while for their version of CP/M on 1581 format. The disk sent from the States was delayed and then corrupted, so another copy had to be dispatched. It is well worth the wait though. I understood the version coming to me was simply on 1581 format. I found out how wrong I was when it was booted up. 1581 owners will be pleased to know that CP/M now loads in 9 seconds! It will also run with any drive, so I am going to list some of the very latest features.

However, it is "slap wrists" time for Commodore (not again!). They left us high and dry with the August 85 version, releasing a later patch to upgrade to the December 85 issue. The version I have is dated 28th May, 1987 with other programs and files of even later dates. As usual, follow-on service by Commodore UK is non-existant. If, like me, you have seen all the staff changes at Commodore, you would think that someone somewhere would say, 'Hey, we have a poor reputation out there', but no, as each new member joins the team and enters through the portals they are injected with the 'no after sales service' vaccine! Sorry about the moan, but it is all very frustrating.

Some of the new features include: full RS232 interfacing with baud rates from 50 to 1200 supported; changeable screen colours; full date and time facilities; dual disk drives are now supported as A-0 & A-1 or B-0 & B-1; a new feel command to scan the keyboard and set the interrupts; a configure command similar to a macro to set all the parameters with a one line command; a poke command to change system bytes; a print command to specify Commodore or true ASCII printers; repeat and volume commands for the keyboard; a program to speed up the 1571 and one to speed up the processor in 80 column mode by switching off the 40 column screen; you can now format on any drive as either A> B> C> or D> and in any format. All the formats the 1571 is capable of are listed on a menu for you to select. The 1581 does not have this facility as it is MFM format only but will read any 3.5" CP/M disk using MFM giving you anything up to 800K of mass storage.

To get this latest version you must adhere to the following rules. Firstly, packing. If good sense does not prevail and I have to break into your parcel I won't copy it! I expect to be inundated after this is published so I don't want things make any harder. Don't forget return postage and a self-addressed label. If the packing is to be re-used, please state this on the outside. Before I deal with the different drives the common denominator for everyone is that you must send your original CP/M systems disk that came with the computer. No disk, no copy. CP/M is not public domain and is only available to licensed users. You became one of these when you broke the seal on the disk, after reading the dire warnings. The blank and unformatted disk(s) you send must be new and good quality, not used previously or cheapos. 1581, 8250, 8050, 1571 owners can send just one disk. 1541, 1570 owners, two disks please. I will attempt to turn your disk around within 48 hours but there may be the inevitable delays. ALL requests for the new CP/M version must come to me, the library organiser, and that includes foreign members. DO NOT SEND THIS REQUEST TO YOUR NORMAL LIBRARIAN.

I will be on the ICPUG stand for all three days at the Commodore Show. We are not allowed to copy disks at the show, but if you wish to give me your disks then (plus all those programs you have written and want us all to share), I will gladly do them after the Show.

128 LIBRARY

By the time you read this there will be some new disks in the library. To conserve space in the Newsletter please request library disk C1 from the librarian who deals with the first letter of your surname. This will not count towards the "two disk only" rule as long as it is only done when a Newsletter is published.

The library is now on 1581 format which has it's own library disk. Some of the library has now been merged from three disks into one so request the catalogue disk first to see what is what.

Finally, the Official Commodore Show at the Novotel in June. I will be helping on the ICPUG stand for all three days. Come and say "Hi". However, may I gently remind members that life is a series of giving and taking; you only get out of it what you put in. This goes for the library, so I will be more than pleased if some of you roll up with submissions.

⁂

DISCOUNT CORNER

by John Bickerstaff

Please refer to pages 92-96 in the January/February issue for GENERAL INFORMATION - including when you can contact me on the telephone.

Do look at the items in this edition. Some facilities have changed even since the previous issue.

CBM HARDWARE is available to members at discount rates. Call for details.

Amiga Centre of Scotland - contact Martin Lowe, 4 Hart Lane, Edinburgh, EH1 3RN telephone 031- 557 4242 - now have available two new programs fresh from the USA. The first is entitled THE DIRECTOR and costs £47.00 . This is the program that was used in the well known Probe Sequence demonstration. The second program is the MICROFICHE FILER and costs £69.00. Call Martin Lowe for more details.

Bitstream Publications can now offer the Programmers Guide to the Amiga by Rob Peck who is the author of the ROM Kernal Manual. This Sybex publication has a cover price of £24.95, but a discount of 15% is available to members (£21.21 net). Please add 80p for postage and send your orders directly to Flat 3, 26/28 Osborne Road, Southsea Hants PO5 3LT.

Bytes & Pieces - contact Chris Wright, 37 Cecil Street, Lytham, Lancs, FY8 5NN have advised that they can now supply memory expansions for the A1000 and A500 at special prices to members. The maker is Spirit and the FAST RAM BOARDS are internally mounted. Prices start at £195.95 for 0.K RAM for the A500 or £199.95 for the A1000 with clock calendar RAM costs from £79.95 for A500 or £84.95 for A1000 for 0.5 MB. Write to Chris for a facts sheet.

LOAD-IT is now available from Mills Associates Ltd., of Wonastow Road, Monmouth, NP5 3AH, telephone 0600-6744. They still allow a reduction of £3.00 on their product when fitted by them or £1.50 reduction if the kit is purchased. They produce a complete Cassette unit at £39.99 with a special discount to members. Call Andrew Peach for availability and more details.

Precision Software Ltd offer 10% discount on most items including Superbase Professional for the Amiga. They will allow 25% on Superbase Personal for the

Amiga. The have some games at 50% reduction including Surgeon, Golden Oldies, SDI, Sinbad and Flight Simulator II. The same discount applies to the Delux Paint, Video and Paint programs, Analyse Ver. 2.0, ON LINE and DISK-2-DISK. Why not call them on 01-330 7166 or write to them at 6 Park Terrace, Worcester Park, Surrey KT4 7JZ - they accept some credit cards. STOP PRESS. A few of their special printers are left (PSL 4010 480 cps) still at only £299.00 including VAT net to members.

Sentinel Software of Wellington House, New Zealand Avenue, Walton on Thames, Surrey KT12 1PY have withdrawn their special discount of 30% on WORD PERFECT. However, if you are still looking for this program at a discounted price please call me for details and source of supply.

Y2 Computing, now at 111 St. Albans Road, Watford, Herts WD1 1RD, offer 15% on all their own products INCLUDING their program Ruby Comm for the Amiga. Their special lower price is not now applicable since the RRP is down.

COMPUNET discount pages - GOTO 326989. CLUBSPOT pages 810213204.

***

CHEAP CHIPS

With reference to the servicing of CBM computers, I do some of my own repairs, and have found the following supplier to give good service dealing with telephone orders using BARCLAYCARD or ACCESS or normal orders by mail.

P.V. TUBES, 104 Abbey Street, Accrington, Lancs., BB5 1EE

They supply Commodore ICs as well as other computer ICs. To these prices add £0.87 for postage and packing, and then 15% VAT, delivery is normally by return of post.

6510	£5.66	6526	£5.11
6561	£7.74	6569	£20.77
6581	£7.79	901225	£3.37
901226	£6.45	906114	£4.51
4164	£1.60	555	0.46
8501	£3.50	8701	£5.46
Z80A	£1.70		

John Walker

8 AND 16 BIT STUFF

A Powerful Wordprocessor
for the Commodore 128®

Font master 128 Only.

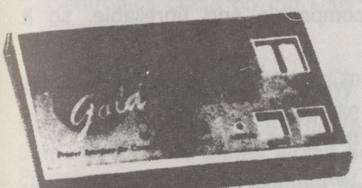
Selected
for the 1987
CES Software
Showcase
Award.

£49.95 incl

From the author of **Fontmaster II** comes **Fontmaster 128**, an enhanced version for the Commodore 128. This powerful word processor with its many different print styles (fonts), turns your dot matrix printer into a more effective tool. Term papers, newsletters, and foreign languages are just a few of its many applications.

★ Program disk with no protection—uses hardware key
★ Supplement disk includes foreign language fonts
★ 56 fonts ready to use
★ Font editor/creator included
★ On-screen font preview
★ 80 column format
★ Supports more than 110 printers
★ *Includes a 102,000 word Spell Checker*
★ Insert graphics within text or superimpose text over them and turn this package into a Desk Top Publisher

Introducing..... *Super Graphix Gold* with specs that out-perform the *Super Graphix Printer Interface*—the industry standard—the *Super Graphix Gold* Printer interface combines improved speed, features, and memory to satisfy the most demanding user.



★ 32K buffer—built in
★ 32 printer choices
★ Supports standard serial from the C64
★ Supports fast serial from the 128
★ 8 switch-selectable operating modes
★ 16 active DIP switches for unequaled flexibility
★ RESET and CLEAR buttons
★ LED indicates activity and errors
★ 2 built-in screen dumps; 16 sizes, 4 shades, inverse, single and double pass
★ 4 fonts built in and four downloadable to RAM
★ Utility disk with more than 40 fonts
★ 4 new channels for downloading and printing
★ All fonts support *underlining, italicizing, boldfacing, super/subscripting and 9 pitches.*
★ FCC certified
★ Lifetime warranty

★ Direct-from-disk downloads and dumps
★ 21 secondary addresses
★ 12 printing channels
★ Command channel with more than 35 commands
★ Banner channel (uses all fonts)

Must be the ultimate interface, superior even to its predecessor *Super Graphix* and it is £119.95

We will do you a deal! Take the award-winning and ultimate W.P./Desktop Publisher FONTMASTER 128 and SUPER GRAPHIX GOLD to get the two for £129.95 and save £40.00. That is no misprint, but a massive saving.

128 CANNON is the only 128 mode copier that works in all modes. 80 columns, utilities, copies between drives 1541/1570/1571/1581. Now only £24.94. Obtain CANON ***FREE*** when you buy the 1581 drive from us at £199.95 (p & p £3).

128 HELPER, the programmers tool and bible. Resident in memory and paged up, printed out etc at the touch of a key. A full programmers reference guide in memory! Great value at £24.95.

How about the latest war game? THE GREAT WAR runs on the 128 and needs a 1571e or 1581 drive, as the disk is crammed full with this game. At least 60 hours play time with maps, and troop movements over the whole of Europe and the Middle East from 1914 to 1918. Play the computer, two up, or swap sides. Save during play. Just released in America and offered to you at £14.95.

Very new and other 128 software is available. Send for details. We offer deals on software when buying the 1581 3½" 800K drive at £199.95.

AMIGA

We are now able to offer very cheap memory expansions. These are internal boards for the A1000 (1½MB) and the A500 (2MB) ZERO WAIT STATE in FAST RAM. They are four-layered, buffered boards which mount internally to the 68000 MPU socket. Provides TOTAL Amiga RAM ranging from ½MB to 2½MB (2MB A1000). Selectable autoconfigure or non-autoconfigure. No soldering required and includes installation disk. The ZERO K board with battery-backed Time/Calendar can start as low as £224.95. However, due to the volatile price of DRAM chips subject to change every day, please write for technical specification and a firm quote on price. These boards do not prevent you from expanding to a whopping 10MB total!!

If we have wet your appetite with these snippets, we have more. Drop us a line. We can take Access or Visa. Who are we?

BYTES & PIECES, 37 Cecil Street, Lytham, Lancashire FY8 5NN
All our prices are inclusive of postage etc. Discount to ICPUG members.

READERS WRITE . . .

● As promised, there are more letters this time. Unfortunately means that many letters have had to be edited to fit the space available. It is interesting to see that several members are keen on in meeting other members with similar hobbies. Again there are several requests for reprints of past articles. There are still a few letters which have been held over till the next magazine. Keep the letters rolling in, whether it be a query, a recommendation, a criticism or simply a thank you. The contents of the Magazine will always be dictated by the articles submitted, but you will be surprised at the number of articles written as a result of a letter published in the Readers Write section. Indeed, ICPUG was started as a result of a letter in a magazine letter column! PH

PAST MASTERS

Paul Deitch of 75 Mellow Purgess Close, Laindon, Basildon, SS15 5XT writes: Since the magazine must be produced on disk, is it possible for back copies to be made available through the software libraries?

● We'll look into it. Editorial responsibilities have changed hands quite a few times over the years, and some disks may be missing. Furthermore, disk and wordprocessor formats are usually incompatible and unreliable, so it may require a large amount of re-working. BB

Martin Baldock of 3 Furness Close, South Wootton, King's Lynn, Norfolk writes: I endorse A Sochanik's comments (Vol 9/6 p625) regarding past articles for the older machines. Any chance of digging them out of the archives?

● You'll be happy to know that we have several notaries working on that very idea at the moment. BB

William McGill of Rose Cottage, Main Street, Arrochar, Dunbartonshire, G83 7AA writes: One of the reasons I joined ICPUG was to take advantage of the Machine Code Course. Has this course died or is it still alive and kicking?

● Fred Offler, the Course organiser, has been out of the Commodore scene for some time. As soon as he gets organised, we should see some developments. In the meantime, please be patient. BB

Robert Parr of 152b Kingston Road, Portsmouth, PO2 7PD writes: I use a C64/1541 and although I have a limited knowledge of computing I would like to get more out of my equipment. As it appears that publishers are no longer interested in these 'dead' machines, may I suggest that ICPUG considers providing a tutorial information service which could be included in the relevant software libraries.

HELP WANTED

Paul Deitch again: Has anybody interfaced a C64 with the disk drives of a Superbrain CP/M machine or can anybody direct me to a suitable book?

● Due to Commodores using custom dedicated disk drives, interfacing with other industry-standard drives is hard work, maybe impossible. Perhaps a two-way communications bus with software in both computers, using the Superbrain as an "intelligent" disk drive might work. BB

Robert Parr again: I use Print Shop on a C64/1541 system and I would like to know how to produce the graphics to the standard shown in the examples supplied. Can one change the infuriating dollar sign to the English pound sign? Can one suppress the line feed sent to the printer to save the wear and tear on the dip switch in the FX80?

And again: I have been having problems with the Disk Demon Professional DOS from Datel Electronics which I use with my C64. Several disks have been corrupted after listing the directory or saving with the Demon. I have also had to switch out the Demon when loading some ICPUG library software and it will not load programs or list directories when the FX80 printer is switched on. Can anybody help?

● Because Disk Demon bypasses many "slow but sure" routines in the 1541 to achieve a high speed, disk access reliability can be badly affected. If your drive is slightly out of alignment, the problem could be magnified. The printer problem could occur because Demon Dos uses a custom Parallel bus for high speed data transfer through the User Port. If you are using a Centronics cable on the User Port as well, communication protocols may be disrupted. BB

John Ward of 26 Melbourne Close, Mickleover, Derby, DE3 5LG writes: I have managed to obtain a copy of Printmaster from America and this compares favourably with Printshop. Unfortunately the program refuses to print out on my Star SG10C. The printer works perfectly with Easyscript, Doodle, Microswift and Printshop. Can anybody suggest why Printmaster does not work with SG10C?

Bryan Wilson of 9 North Cliff Avenue, Scarborough, North Yorks, YO12 6PW writes: I am about to replace my electric typewriter and I would like to buy a model which can be linked to my Pet 4032 or Commodore 128/Brainbox system. I use a 4040 drive and, although my 4022 printer is still giving me good service, I would like to have letter quality printing at a reasonable speed. Can anybody help?

R S C Lawton of 31 Courtfield Gardens, London W13 0EY writes: I am having trouble with the *ps (pause) command in Script/Plus. I would like to stop the printout in the middle of a line and then change to italics and continue printing. I use a MPS801 printer or a Brother typewriter with a Brother interface. On both printers the print head stops, moves to the left margin and down to the next line and cannot be restarted. Can anybody help?

● Pete MacLaurin of Precision Software is on holiday at the time of writing. I believe there is a problem when using the pause command for the purpose you describe, but I will confirm that in the next Super* Corner. PH

W G C Austin of 33 Slingsby Gardens, Cochrane Park, Newcastle upon Tyne, NE7 7RX writes: I would like to use my CBM Daisywheel printer with a computer which has a centronics port. Does anybody know where I can get an interface for Centronics to CBM Serial?

● Meedmore Limited of Merseyside (051-521-2202) supply such an interface by

Stack Products at £60. BB

Terry Hart of 17 Burns Gardens, Lincoln, LN2 4LJ write: I am using AMX Mouse and Stop Press with the C64/128. When using these with my Epson RX80 printer I get a ragged edge at the joins between one portion of a 'page' and the next as saved to disk. Also, the Cutout Converter cuts hires pictures in half and then transposes them. Can anybody help?

William McGill again: Every now and then the ribbon of my DPS1101 printer breaks. The User's Guide mentions a Ribbon Feed Adjust Lever. Does this lever have anything to do with the breakages?

- My Juki 6100 User's Guide also mentions a Ribbon Feed Adjustor Lever. The lever is used to switch between proportional spacing and normal spacing. I have suffered ribbon breakages as well, but on the whole the number of breakages is small. It may be that the ribbons you are using are not up to standard. PH

PENPAL PUSHING

Ian Cassidy of 9 Haldane Crescent, Kirkton, Dundee, DD3 0JN writes: The nearest user group to me is sixty miles away in Edinburgh. How about a Penpal Corner or even a Penpal Database?

- A very good idea! I shall talk to the Head Ed (on bended knees) and request some extra space in the magazine for a Penpal Corner. If this proves popular then the powers that be may well take up your kind offer to run a Penpal Database. Anybody interested in finding a penpal, please write including your full name and address, computer equipment and computer hobbies as well as outside interests. PH

M Stanton of 260 Acre Lane, Kingsthorpe, Northampton, NN2 8DY on a very similar theme writes: I would like to propose a new service that ICPUG could provide for its members. As I am miles away from the nearest User Group, I believe that I as well as others would benefit from a "Penpal" column.

- Perhaps Mssrs Cassidy and Stanton would like to get together over this and form a Penpal SIG. We would be more than happy to have a Penpal Corner in the Newsletter, and we will hold any penpal requests until something is sorted out. Perhaps this could develop into an extension of the Technical Help Register. BB

William Woodrow of 1 Paget Terrace, Penarth, South Glamorgan, CF6 1DR writes: (See Talking Point Vol 10, No 1, Pg 67) As a newcomer to computing and to ICPUG I was a little bewildered by most of the articles in the last magazine. I was pleased to read Brian Grainger's article though. I was a very keen photographer until my equipment was stolen. On retirement I saw a demonstration of a video camera and became hooked. Wanting to produce titles and captions, I bought a C64 together with Video Titles 64. Alas the C64 has its limitations and this led to the purchase of an Amiga with Genlock, Enhancers, Video Mixing equipment etc. I am now awaiting eagerly for the 64 Emulator for the Amiga so that I can run all my C64 programs. I am dismayed to see that there are no user groups in my area. Is there anybody who would like to join forces with me?

Martin Baldock of 3 Furness Close, South Wootton, King's Lynn, Norfolk again: As I have just moved to the area, I would like to contact C64 enthusiasts. Outside computing I am interested in Art, Music and Grand Prix Motor Racing. I would be interested to hear from anybody using OCP Art Studio, Blazing Paddles, the Image System, the Music Expansion System or the Datel Sampler/Comdrum.

COMMENDABLE COMMENTS

Robert Parr again: I am very pleased that I joined ICPUG. I have received advice from Jim Kennedy, Ian Bennett, Tim Arnot and Mick Bignell from Microport. He serviced and returned my 1541 very quickly when it needed re-alignment and I recommend his excellent service.

- The majority of letters received have in one way or another praised the efforts of ICPUG. This letter only represents the tip of the iceberg. Mick Bignell does indeed provide an excellent service. He found the penny that I (or somebody) dropped into my 1570 and replaced all the damaged chips very promptly and now it works perfectly. Can't remember though whether he ever returned my (or somebody's) penny. Mick's telephone numbers are 01-953 8385 and 077836 433 (near Peterborough). PH

George Barker of Whitecroft, 2 Marley Close, New Milton, Hants BH2 5LL writes: I am retired and have never regretted buying a Plus 4, which incidently is the reason I joined ICPUG. I have been captivated by Script/Plus and, while contemplating an Amiga with Desktop Publishing, I spotted an advert for Printkit IV. When the kit came I realised that fitting was beyond my soldering skills so I sent the kit back to Avon Printer Technology together with my printer. A week later I had my printer back and now have descenders, underlining, bold print and italics. I recommend Printkit IV to others (See also Vol 9/5 p486).

TIPS AND TRICKS

Robert Parr again: Last week I opened up the C64 and cleaned all the switch contacts swapping the little used z for the e amongst other swaps. Today I have undone an FX80 ribbon and turned it round so that now the other half of the ribbon will be used.

Mick Leach of 5 Monaebrook Place, Helensburgh, Dunbartonshire, G84 7JD writes: There is a problem with the 1.2 version of the Eprom in the Star LC 10 printer which does not allow any form of bold or emphasized print in NLQ mode. If any member contacts Mr Rob Pepper (firmware development at Star Micronics) he will supply them with V1.31 of the Eprom. This version allows double strike to be used in NLQ mode to highlight text. This still though does not allow emphasized print in NLQ mode which is the printer codes sent by both Textcraft and Scribble 2 when bold print is selected from the menu.

CHAIN DISKING

David Miller (64 Librarian) writes: (See article Vol 9, No 6, Pg 585) Tony, how can you say that no reference to money was made. The opening screen asks for a donation of what you think the disk is worth and a fifth of the amount you send will be sent to the person who gave you the copy. Accompanying the disk, I received a letter dated 27/9/85 in which Monty asks for a monetary contribution and/or suggestions for improvements. Is this the first Chain Disk? My AU number is 119 and I would be interested to hear from Tony or others with AU numbers so that we can measure the success of Chain Disks.

BEST WISHES
William McGill again: Good Luck to the Amateur Radio SIG from the Helensbrugh Amateur Radio Club.

WITH THANKS
R S C Lawton again: Hooray for Mrs Kathe Holoday of Florida! (Vol 10, No 1, Pg 50) I must have spent hours saving and deleting files which would have been very much quicker to replace with the @: prefix.

- Anybody wanting to use the save and replace prefix @: should read Bill Bremner's warning (See Vol 10, No 1, Pg 51). PH

⁂

FOR SALE AND WANTED

For Sale

Commodore 1701 Colour monitor £90, Commodore 1526 Dot matrix printer £80, AMIGA A1000 512K Computer with A1081 Colour monitor £600, 2Mb memory expansion for A1000 £330. All the above in excellent condition. Offers to Duncan HAMON, 160 Church Hill Road, Cheam, Sutton, Surrey SM3 8NF Tel:01-644-5393 systel:016445393

PET 4032 + Microport board (40/80 switchable); 2K add. video RAM + dual char gen; Pronto-Pet reset switch; 2 Spacemaker II ROM boards (in 9000/A000 sockets). £125. 4040 disk drive £150. 4022 printer £50. TNW-2000 PET-IEEE to RS232 serial i/face; 300-2400 Baud; switchable 2nd addr+ucase/graphics lcase/ucase modes; s/ware & leads to transfer PET data to IBM PCs etc. £50. Acculab PET-IEEE to Centronics parallel i/face; switchable ucase/graphics & lcase/ucase modes; configurable 2nd addr; Plugs into PET connector. £20. As above plugs into PET-IEEE connector £20. Small Systems Engineering PET to TV/Video monitor driver. £15. Branding Iron PET EPROM (2716 & 2532) programmer + s/ware £25. Grenwich Instruments Instant ROM 4K EPROM emulator £10. Griffin Dual Channel PET Analogue to Digital i/face £25. Griffin PET Digital to Analogue i/face £25. Alpha Plus PET char gen £5. 5 4022 printer ribbons. 50p ea. 160 used disks 25p ea. Disk s/ware: S/script, S/spell, Busicalc, CBM Assembler, Disk Revealed 2, Simply Recover, Baker-Utilities, Papermate, Screen-Input, Create Mask, Supersort, Tagsort. £5 ea. Chips: Command-O (40), Command-O (80), Superchip, SM-Kit, Petrax, Basmon, Plusdos, Toolkit (no manual). £5 ea. Books: Job lot 50 backnumbers ICPUG & ICPUG SE Newsletters, Programming the PET/CBM, 6502 Assembly Language, 6502 Software Cookbook, Beyond Games, 6502 Subroutines, Programming the 6502, Anatomy of the 1541, Dr. Watson Book of Assembly Language, The PET Revealed, Library of PET Subroutines, PET Graphics. £3 ea. Books: CBM Computer Guide, PET Computer Guide, Hitch-Hikers Guide to the PET, BASIC Computer Games, More BASIC Computer Games, PET M/L Guide, 4040 User's Manual, CBM BASIC v.4 Reference Manual. £1 ea. Individually or offers for the lot. Plus carriage or buyer collects. Trevor Livesey, 50a South View Road, Benfleet, Essex, SS7 5ND tel (day) 01-387 9466 x371 (evening) 0268 755420

AMIGA 2000 with 2 internal 3.5" drives & 1081 colour monitor, £1099. PC XT Bridge board with 5.25" internal drive £399. 1010 external 3.5" drive £120. Complete system (board & drive installed) £1499. All in mint condition. Tel Allan King (0895) 834358 (Middlesex)

COMMODORE 128 £140. 1571 drive £140. 1901 monitor £160. MPS 803 printer £60. Centronics i/face £20. RS232 i/face £15. EPROM programmer (+ s/w + 64 m/c monitor) £35. Dbase II (128) £60. Simply Write (64) £15. Assorted 64/128/1541/1571 books £25. Most in original packaging with all user & service manuals. All the above + 20 disks + s/w + info £575. Tel (0582) 62375 (Dunstable - after 7pm or w/ends)

AMIGA 2000 with 2 3.5" internal floppy drives, expanded RAM (total 1.5 Mb), 1081 monitor. £1099. PC XT Bridge board, incl. 5.25" floppy drive for Amiga 2000, £399. Both together £1400. MPS1000 dot matrix printer, CBM/IBM compatible, 100 cpi draft/20 cpi NLQ, tractor/friction feed, perfect condition. £150. Tel Derek 01-474 3640 (London E6)

COMMODORE 64 (slimline case); 1541 (+SpeedDos); 1702 printer; 4023 printer (new/unused, complete with Dams cartridge & connecting lead); Joystick; Cassette; second 64 (operating but with minor fault); 2 PSUs. Add-ons: CP/M cartidge & disk, CBM Modem & other assorted cartridges. 4 slot motherboard, Cadmaster lightpen. Assorted original software. Assorted books (pristine condition). Offers over £450 delivered or over £575 with 8050 disk drive. Harry Johnson, Brooklea, 13 Granville St., Helensburgh, G84 7LL, tel (0436) 3022

1571 DISK DRIVE complete with manual and all cables, all in as new condition, £140 ono. This disk drive was originally purchased to be used with a C128 which due changed plans and advancing technology was never purchased. Telephone Stephen Reed on Chandlers Ford (0703) 268682 after 8pm or on weekends.

CBM 128D £150. 1701 £100. Citizen 120D (Centronics) printer & cable £100. 110 volt disk drive with transformer, 1541 £75. MSD2 dual single-sided drive (serial & IEEE) £150. Carriage extra. SAE for other 64/128 items. Peter Reynolds, 65 Claremont Road, Tunbridge Wells, Kent, TN1 1TE, tel (0892) 26016

C128/1571 disk drive; 1531 datasette; Centronics interface; Freeze Machine; books & lots of software (serious & recreational) on disk & cassette. £330 ono. Tel Taff Lovesy (0487) 842042 after 6pm or Weekends.

CBM 4032 (Fat 40) computer complete with BASMON & PLUSDOS; CBM 4040 twin disk drive; 4022 dot matrix printer. Complete with all manuals & leads. Mint condition, recently inspected & tested by Microport, passed with clean bill of health. £350 the lot. Fred Offler, c/o 69 The Glades, East Grinstead, Sussex, RH19 3XW

COMMODORE 64/128 utility software: GEOS 64 (disk) £15. Print Technik video digitiser (cart/disk) £45. Magic Voice speech cartridge £15. Sound Sampler cartridge (tape/disk) £20. Music Maker 128 incl. keyboard overlay (tape) £10. Stack light pen incl. graphics/games software (tape) £10. Stack Centronics printer cable incl. software (disk) £15. CBM Compunet modem £10. David Bales, 4 Drummond Way, Macclesfield, Cheshire, SK10 4XJ, tel (0625) 827033 (evenings)

COMMODORE FM Sound Expander (64/128 - disk), 8 note polyphonic sound generator with over 200 different voices, only £20. Commodore Sound Sampler (64/128 - disk), samples & digitizes sound with echo & drum facilities,only £10. Will consider any sensible offer. Tel Penketh 8775 (after 6pm).

C64/1541/C2N; Manuals; Programmers Reference Guide. £150. Tel (0932) 241242 (Middlesex)

PET 8032; 8050 disk drive; OKI 82A Microline printer; DMS Diamond database; complete with cables & interface for printer. £350. Tel (0494) 784131 (Chesham - evenings)

IMPEX SCREEN Dumper £5. Textfile w/p £6. Easyscript £10. Gemini Database £6. All on disk. Also, exchange Sanyo Betamax video recorder for 1541 disk drive (must be in good condition). W Faulk, 22 Myrtle Crescent, Kirkcaldy, Fife, KY2 5DX, tel (0592) 263733

VIC 1525 printer, good condition, dust cover, leads etc, £75 ono or exchange. John Walker, 14 Leamside, Leam Line Estate, Gateshead, Tyne & Wear, NE10 8NT, tel (091) 4690157

CBM MPS801 £75. Sound Sampler (64) £40. Petspeed (128 - disk) £25. Battle for Normandy (d) £10. Combat Leader (d) £10. Graphic Adventure Creator (tape) £15. Dambusters (d) £10. Sound Studio (d) £10. A Jones, 18 Grayling Drive, Croxteth Park, Liverpool L12 0AT

BUSINESS COMMODORE computer model 3032; 2031 disk drive (both little used); 2023 printer (new); Visicalc software; printing paper. Highest bidder. L Kuehne tel 01-508 6990 (Essex)

DUAL 8280 DISK DRIVE, uses double sided 8" disks each with 900k capacity, incl. cable & interface for 64/128 & a box of disks. £120. Tel (0494) 711223 (Hazlemere, High Wycombe)

AMIGA: The Amiga Handbook by Sunshine (ideal for beginners) £5. Feud (unwanted gift, new) £5. Both incl. P&P. Niall Hallett, 7 Cuckamus Lane, North Leigh, Witney, Oxon, OX8 6PR

AMIGA DEVELOPERS reference guide (2nd edition), brand new (& totally beyond me!). Bargain at only £16.50. Ray Medford, 4a South Grove, Brooklands, Sale, Cheshire, M33 3AU

MICROCLERK 128 £45. 1351 mouse £25. CAD-Pack 128 £15. Tel (0224) 586622 (Aberdeen after 7pm).

C2N DATASETTE for 64/128, hardly used £19. Micrographix MW50 parallel printer graphics interface for 64/128 £30. Terry Hart, 17 Burns Gardens, Lincoln, tel (0522) 29643.

COMMODORE 64 COMPENDIUM, unused & in original boxes, incl. cassette unit, small musical keyboard, Designers Pencil etc £99. MPS801, overhauled, in VGC & running perfectly, £75. Apple 401 plotter (unused), runs from 64 RS232, 4 colours etc, last publ. price £700 - offers? Canon/IBM thermal printer with Commodore i/face, works with most graphics packages, little used £85. Bob Harris, tel (0590) 73458 (Lymington)

AMIGA A500; MPS1000 printer + lead; 40 blank disks; mouse mat; books worth over £145. £700 ono (worth over £950) buyer collects. Eric Davies, tel (0244) 319308/44902 (Chester)

COMMODORE 128D; Phillips mono monitor (+video cable); Vizawrite Classic 128; parallel printer cable. £350. Commodore 128 £130. Commodore MPS1000 £150. Tel 01-642 5380 (Surrey)

COMMODORE MPS1000 dot matrix printer, Commodore serial or Centronics parallel input, 128/64/Amiga compatible, 1 year old & complete with original & spare ribbons. Offers. Brian Springthorne, 77 Croydon Drive, Penkridge, Staffs ST19 5DW tel (078571) 5240

MICROCLERK 128, complete with cash disk £45. Tel (0329) 284973 (Hants)

UNWANTED AMIGA software: Balance of Power £12. Borrowed Time £6. Guild of Thieves £10. Flight Sim II £20. Terrapods £10. Hacker 2 £7. Shanghai £7. Music Studio £12. Chessmaster 2000 £10. Bard's Tale £10. Test Drive £10. Tel John (0223) 861703 (Cambridge - evenings,w/e)

INTERPOD INTERFACE - CBM serial to RS232 & IEEE. Complete with PSU, instructions & original box. £35 ono. Tel (0734) 482559 (Reading)

DPS1101 DAISYWHEEL printer, including leads & handbook, excellent condition, £150. Slimline 64 case, never used, still boxed, £10. 1520 printer/plotter including pens & paper, offers. Andrew Hartley, 63 Meredith Drive, Haydon Hill, Aylesbury, Bucks, HP19 3NH, tel (0296) 23423 (6-10 pm)

Wanted

AMIGA BOOKS - especially Hardware Ref. Manual & Libs/Dev Manual. Chris Clifford, 54 Wern Road, Skewen, Neath, West Glamorgan, SA10 6DL.

8250 DISK DRIVE & (possibly) Brainboxes interface for 128D. Tel (0297) 22975 (Devon)

PET (8032/4032) software for ICI Rexagon controller & OCL Saker digitiser board. Any other out-of-the-ordinary add-ons for the PET (eg Machsize user port workshop, Altek barcode reader or WHY?). Harry Johnson (see For Sale above)

Special Notice

Mrs Eaton, 10 Vale Crescent, St Georges, Western Supermare, Avon BS22 0XJ, tel (0934) 511915, is selling a brand new, unopened VIC-20, which used to belong to her husband. If anyone is interested, please contact her direct.

SPECIAL OFFER!

For **THIS** month only

Tim 'Fingers' Arnot's new blockbuster MegaBook

The Engineer's guide to the left shift key

Only £14.95 + £2.00 p&p

The following classics are still available in limited edition:

Any mouse port in a storm

Joystick fire button memory map

Disk drives and other breadbins

Laymans guide to joystick extenders

BIRO: The key to good typing

Send your orders to:
Bogroll Products, 1st Floor Basement, South Coast, England. APR 1LI
Created on Superbase Professional Forms Editor (Atari version)

ICPUG Software Libraries

Organiser: Joe Griffin, Clovelly, Lynwick St, Rudgwick, Horsham, W Sussex RH12 3DJ

Please remember that the libraries are operated on an entirely voluntary basis and, unlike many of the American User Groups, ICPUG DOES NOT CHARGE A COPYING FEE.

The Libraries contain PUBLIC DOMAIN programs from a wide range of sources, including our own members and other user groups. WE DO NOT SUPPORT SOFTWARE PIRACY.

Members may obtain ALL the library material. In order to retain a measure of control over the work-load imposed on the Copiers, however, we do restrict the amount of material that may be obtained on any one request.

Disk users may obtain up to two disk copies at a time (Amiga five).
Tape users may obtain up to four programs, from any one disk.
(Please use a C-60 or C-90 tape ---a C-15 or C-30 may be too short.)

To obtain copies of catalogue or library disks, please send:

A statement of what you want
Your membership number
Disks (stating FORMAT --- type of drive --- required) or Tape
  We will NOT use a disk as a 'flippy' as it can damage the disk drive
Pre-addressed reusable packaging suitable for return
  There have been occasions when disks have arrived bent in half!
  Please ensure that packing is adequate
Return postage --- SEND STAMPS
  Overseas members should send International Reply Coupons
  (allow at least one-and-a-half IRCs per disk sent)

PET --- Joe Griffin (see above)

VIC --- Joe Griffin (see above)

COMAL --- Brian Grainger, 73 Minehead Way, Stevenage, Herts SG1 2HZ

1520 Plotter --- WGC Austin, School of Geography, Faculty of Humanities,
Newcastle Polytechnic, Lipman Building, Sandyford Rd,
Newcastle upon Tyne NE1 8ST

1520 (Tape) --- John Bentley, 38 Conway Rd, Taplow, Maidenhead, Berks SL6 0LD

PC Organiser: Tim Arnot, Flat 3, 26/28 Osborne Rd, Southsea, Hants PO5 3LT
Please always send your requests to the copier listed below who deals with th
CATALGOUE CATEGORY of material you want. Catalogue from Peter Crowder
see below.

A--D Henry Velleman, 52 Ventnor Drive, Totteridge, London N20 8BS
E--O Peter Crowder, 27 Crawford Drive, Liverpool L15 8AE
P--Z David Harrow, 28 Phoenix Drive, Wateringbury, Maidstone, Kent ME18 5DR

Software Libraries (cont.)

Plus 4 (& C-16) --- Richard Hunt, 45 Cumberland Rd, Bromley, Kent BR2 0PL

C-64 Organiser: David Miller, 38 Exeter Gardens, Ilford, Essex IG1 3LB
Please send requests to the copier listed below who deals with the first letter of your surname

A--B David Miller, 38 Exeter Gardens, Ilford, Essex IG1 3LB
C--F R Burns, 48 Grasmere Rd, Royton, Oldham, Lancs OL2 6SR
G--K Geoff Crowther, 60 Fleckney Rd, Kibworth Beauchamp, Leics LE8 0HE
L--O James Mason, 35 Woodburn Drive, Dalkeith, Midlotien, EH22 2AZ
P--S Nigel Corry, 4 Horsted Way, Rochester. Kent ME1 2XY
T--Z Peter Crowder --- see PC Library, E--O, opposite

Germany (inc. BAOR) Lt AR Perkins, 11 Trenchard Rd, RAF Digby, Sleaford, Lincs

Overseas (other) & 8050/8250 --- Joe Griffin --- see opposite

128 --- Organiser and software collator: Chris Wright (see below), 37 Cecil Street, Lytham, Lacashire, FY8 5NN, England. Please send requests to the librarian listed below who deals with the first letter of your surname

A--C Bill Gardner, 156 Henwood Rd, Compton, Wolverhampton WV6 8PA
D--J Tom Nuttal, 43 Renshaw Drive, Bury, Lancs, BL6 7NJ
K--R Robert Dally, 6 Derwent Crescent, Clitheroe, Lancs, BB7 2PW
S--Z Dave Tew, 4 Acombe Cresc, Hambrook Pk, Charlton Kings,
Cheltenham, Glos GL52 6YH
Overseas (All) Derek Clifford, 36 Hanover Avenue, Feltham, Middlesex, TW13 4JW
8050/8250, Z80 and 1581 requests to Chris Wright (see above)
128 BULLETIN BOARD on 0902-745337 (24hrs) see p402 (1987)
(PC users can also log onto this board)

Amiga Organiser: Peter Miles, The Queen's Armes Hotel, Charmouth, Dorset DT6 6QF. Write to him with/ about your programs. Disk copies should not be requested from the librarians.

Amiga Disk Copiers: (Not more than 5 disks at one time). For specific ICPUG library disks and the catalogue of Readme files (ie contents), please send your requests to the copier who deals with the first letter of your surname. ALSO for the New Amiga Users Set of 5 disks.

A--I David Annal, 142 Windermere Road, Norbury, London, SW16 5HE
J--R Peter Reeve, 2 Court Road, Tunbridge Wells, Kent TN4 8ED
S-Z Chris Wright (see 128 above)

Public Domain (non-ICPUG) - Fish, Amicus & Demo disks and the catalogue of 'Readme files' (ie the contents), can be obtained from the copier named below who deals with the first letter of your surname.

A--K Eddie Moore, 4 Gosling Close, Hatton, Warrington, Cheshire WA4 5PB
L--Z John Grove, The Cobnuts, Cobbs Close, Ightham, Sevenoaks, Kent TN14 9DB